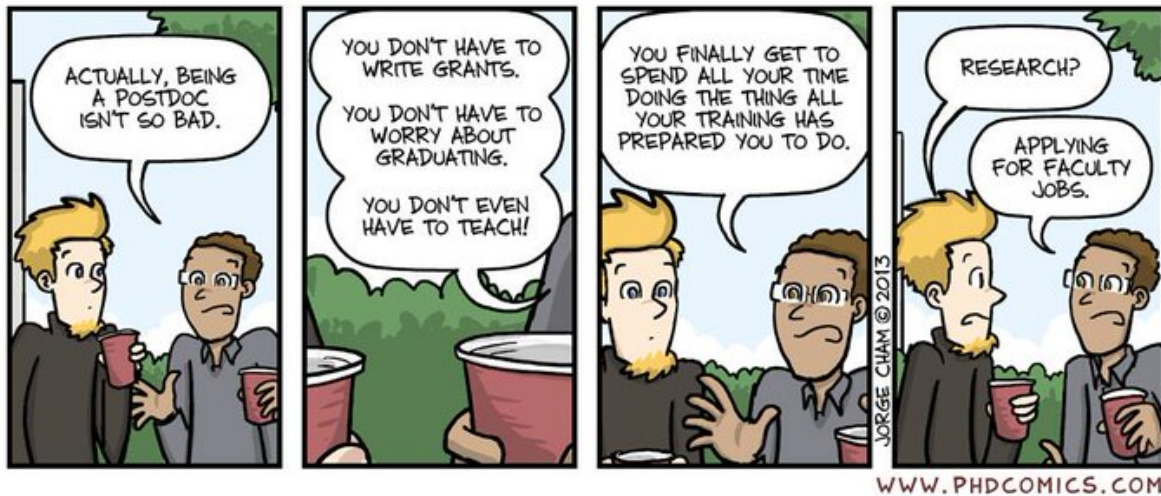


# Careers for Mathematics and Statistics Graduates

John Burkardt,  
Department of Mathematics,  
University of Pittsburgh,  
[https://people.sc.fsu.edu/~jburkardt/presentations/careers\\_2023\\_mst.pdf](https://people.sc.fsu.edu/~jburkardt/presentations/careers_2023_mst.pdf)

16 October 2023



*Some not very correct ideas about a postdoc position!*  
<https://phdcomics.com/comics.php?f=1623>

## Abstract

What comes after you've reached your goal of a degree in mathematics or statistics? Students may have little idea of the suitable employers (academia, business, industry, government), the kinds of non-academic jobs available (such as computing, data science, engineering, finance, health, pharmaceuticals), and the ways of finding and applying for jobs. This talk will quickly survey your choices in seeking to start a career. Some time will be spent explaining how an academic career starts with a postdoc position, and how a person interested in a future job at a company or laboratory can seek a summer internship.

## 1 First Job for Math Graduates?

Suppose we skip ahead to the moment after you have gotten your master's or PhD degree, after specializing in some area of mathematics or statistics, and writing a dissertation on some very specific problem. Does the first job you get correspond to your training?

At the University of Pittsburgh, the Math Department maintains a record of the first job taken by PhD graduates. Let's take a look at it, to get a real surprise at the range of dissertation areas, the variety of companies that hired graduates, and the way that a dissertation topic often seems to have little to do with the job that was found.

This job information is currently available at

University of Pittsburgh  
Department of Mathematics  
Graduate  
Graduate Employment

or

<https://www.mathematics.pitt.edu/graduate/graduate-employment>

## Graduate Employment

We take pride in our excellent job placement record. Our program trains students in quantitative skills that are in demand on the job market. Our graduates go on to diverse, fulfilling careers in academia and industry.

Year	Name	First Position Post-Graduation	Dissertation Title
2023	Tian Jing	University of Michigan - Post Doc	Interface Problems In Two-phase Magnetohydrodynamic Flows
2023	Jesse Han	CEO/Founder Blazen AI	Contributions to Neural Theorem Proving
2022	Luis Berloiz	National Autonomous University of Honduras - Head Professor Level 2	Hierarchical Representation of Terms from Large Mathematical Corpora
2022	Yujie Ding	Samsung Semiconductor (San Jose)	Wave Patterns in Networks of Coupled Oscillators
2022	Xiaoyu Duan	National Institute of Health - Post Doc	Parameter Identification and Estimation of Dynamical Systems from a Single Trajectory
2022	Henry Duran		Nonlinear Waves in Lattices and Metamaterials
2022	Mark Fincher	BNY Mellon	Canonical Decompositions of Hyperbolic 3-orbifolds
2022	Tyler Gaona	Indeed.com	On Hyperbolic 3-orbifolds of Small Volume
2022	Kiera Kean	Temple University - NSF Post Doc	Accuracy and Simplicity in One Equation Turbulence Models
2022	Haoran Liu	Citigroup	Unfitted Finite Element Methods for the Stokes Problem using the Scott-Vogelius Pair

Looking at this information, you will see that a large number of graduates go to various banks and financial companies. This suggests that, even if you are concentrating on abstract algebra, complex analysis, or partial differential equations, it's worth while to pick up a credit or two in courses in probability, statistics, financial math, data science, programming or actuarial science.

Only a **minority** of our students went into academic positions, and in most cases their first job was not as an assistant professor, but rather as a post-doctoral student.

## 2 Breaking into the Academic Job World

You should already know the three ranks of assistant, associate and full professors, and that on reaching the associate professor stage, it is typical to struggle to get tenure, after which your position at a university is pretty safe.

However, with the increase in enrollment, teaching loads and research requirements, and the reduction in support from state governments, most universities have added a number of lower positions, with a variety of names, including *instructor*, *visiting associate professor*, *lecturer*, *non-tenure-stream professor*. If you are looking for a first academic position in statistics, you should probably apply for assistant professor positions; however, in mathematics you will instead need to start by looking for a **post doc** position.

This is an intermediate position between graduate school and a professorial job. It may last from 1 to 3 years. It comes in a variety of forms. Usually, the job is thought of as a sort of training experience, and a chance for you to do some more publishable research that will qualify you to apply for a professorship.

A departmental postdoc is a kind of temporary professor, doing some teaching and independent research; a research postdoc will typically work directly with a supervising professor, who has a major research project, and can be expected to advise, guide, and train you for this work.

A post-doc position can be thought of as a half-step to a professorship, intended to give you practice in teaching, research, collaboration, publication, conference presentations, under the guidance of an advisor or mentor. You will want to write and publish some good papers, make some useful professional contacts, and gather some favorable letters of reference in preparation for your application for a professorship.

You should know that you will generally not be considered for a professorship at the school where you have just completed your post-doc!

A nice discussion of the varieties of postdoc jobs is given at:  
<https://orise.orau.gov/resources/stem/professional-development/becoming-a-postdoc/what-is-a-postdoc.html>

## 3 Apply for academic jobs mathjobs, asa-jobweb, jobseeker

There are a number of web sites which post job announcements for mathematics and statistics:

- **mathjobs**, sponsored by The American Mathematical Society;
- **asa-jobweb**, from the American Statistical Association;
- **jobseeker**, for the Society for Industrial and Applied Mathematics (SIAM);

These sites announce new positions, allow job seekers to set up resumes and other documents, to request letters of reference, and to apply to specific jobs. Most jobs announcements appear starting in September, and applicants are typically encouraged to apply, and supply all information, by the end of December. In January, committees often choose about three candidates, who are invited for interviews, and then an offer is made in early spring.

Even before you are ready to look for a position, it's useful to search these sites, to see how many jobs are open, where they are, what levels and areas of specialization are of interest. For instance, you will notice right now that very many jobs seem to be looking for people with some skills in data science or machine learning.

The American Mathematical Society and the Mathematical Association of America also provide job posting and connections. There is a joint AMS/MAA meeting, to be held in San Francisco January 3-6 2024, which includes on site job interviews for many academic positions, often at smaller teaching universities, and particularly of interest for fresh PhD students.

The meeting is described at: <https://jointmathematicsm meetings.org/jmm>

You should be particularly interested in the section on *Employment/Career Opportunities*:

- Employment Center
- BEGIN Career Center
- Career Fair
- Grad School Fair

## 4 Browse mathjobs

Let's browse through the mathjobs site as an example, going to

<https://www.mathjobs.org/jobs>

and choosing



Login to MathJobs.org  
...as a job applicant  
View Jobs (appears at top of screen)  
JobListings [by country/state]

At the top of the list you will see US states, with the number of jobs in parentheses.

The screenshot shows the top navigation bar of the MathJobs.org website. It includes the AMS logo, the text 'AMERICAN MATHEMATICAL SOCIETY MATHJOBS.ORG', and a search icon. On the right side of the bar are links for 'View Jobs | Registered Employers | Contact Us | Help | Login'. Below the navigation bar, the page title is 'Job Listings [URMs]'. To the right of the title is a search box with the text 'Find by ID# or keywords' and a 'Go' button. Below the title and search box are several navigation links: '[select by types] [by country/state] » [sort alphabetically] [by postdate] [by enddate] [by deadline] [by startdate] [by distance] [by status] » [show map]'. At the bottom of the screenshot, there is a list of US states with the number of jobs in parentheses: 'United States: Alabama (3), Alaska (1), Arizona (4), Arkansas (1), California (59), Colorado (10), Connecticut (2), District of Columbia (11), Florida (7), Georgia (1), Idaho (3), Illinois (11), Indiana (4), Iowa (1), Kansas (2), Kentucky (3), Louisiana (3), Maryland (7), Massachusetts (19), Michigan (14), Minnesota (3), Mississippi (2), Missouri (5), Nebraska (2), New Hampshire (1), New Jersey (9), New Mexico (1), New York (23), NewHampshire (1), NewYork (2), North Carolina (5), Ohio (6), Oklahoma (1), Oregon (1), Pennsylvania (22), Rhode Island (6), Select... (1), Tennessee (3), Texas (20), Utah (7), Vermont (2), Virginia (6), Washington (7), Wisconsin (9)'. Below this list is the text 'United Arab Emirates: Abu Dhabi (1), Sharjah (1)'.

Picking a state gives you the current list.

## Job Listings [URMs]

[select by types] [by country/state] » [sort alphabetically] [by postdate] [by enddate] [by deadline] [by startdate] [by distance] [by status] » [show map] »   

United States:  
Pennsylvania (22)

### Allegheny College, Mathematics

1. [VAP] Mathematics, Visiting Assistant Professor of Mathematics (Pennsylvania, US)

### Bryn Mawr College, Computer Science

1. [AP] Visiting Instructor/Visiting Assistant Professor of Computer Science (Pennsylvania, US)

### Bucknell University, Mathematics

1. [TTA] Tenure Track position in Analysis (Pennsylvania, US) [Apply](#)
2. [TTM] Tenure Track position in Mathematics (Pennsylvania, US) [Apply](#)

### Lehigh University, Mathematics

1. [LEHIGHTAP23] Any area of Mathematics or Statistics, Teaching Assistant Professor (search halted, deadline 2023/03/17 11:59PM, Pennsylvania, US) [Apply](#)

### Penn State Behrend, School of Sciences

1. [ATPLM] Assistant Teaching Professor or Lecturer of Mathematics (Fall 2023) (Pennsylvania, US)
2. [LATPM] Lecturer/Assistant Teaching Professor of Mathematics (Starting Spring 2023) (Pennsylvania, US)
3. [LATPM1] Lecturer or Assistant Teaching Professor of Mathematics (Fall 2023) (Pennsylvania, US)

### Pennsylvania State University, Department of Mathematics

1. [CCMA] Mathematics, Postdoctoral (Pennsylvania, US) [Apply](#)
2. [NTLF] Mathematics, Non-Tenure Line Faculty (filled, Pennsylvania, US)
3. [PD] Mathematics, Anatole Katok Center for Dynamical Systems and Geometry Research Assistant Professor (Pennsylvania, US) [Apply](#)
4. [POSTDOC] Mathematics, Postdoctoral Scholar (Pennsylvania, US) [Apply](#)
5. [POSTDOC1] Mathematics, Postdoctoral Scholar (Pennsylvania, US) [Apply](#)
6. [POSTDOC2] Mathematics, Postdoctoral Scholar (Pennsylvania, US) [Apply](#)
7. [PSTDC3] Mathematics, POSTDOC3 (Pennsylvania, US) [Apply](#)
8. [TF] Mathematics, Teaching Faculty (Pennsylvania, US) [Apply](#)

### Pennsylvania State University, Penn State Berks

1. [LATPM] Lecturer or Assistant Teaching Professor of Mathematics (Pennsylvania, US)
2. [LATPM1] Lecturer or Assistant Teaching Professor of Mathematics (Pennsylvania, US)


### Susquehanna International Group, Quantitative Research

1. [QRFT1] Quantitative Researcher – Graduate Hire (Pennsylvania, US)
2. [QSFT1] Quantitative Strategist – Graduate Hire (Pennsylvania, US)

### Temple University, Mathematics

1. [INSTRPROF] Assistant Professor of Instruction (Pennsylvania, US) [Apply](#)

### University of Pittsburgh, Mathematics

1.  [POSTDOC] Mathematics Research, Postdoctoral Associate in MRC (Math Research Center) (Pennsylvania, US)

Clicking on any job abbreviation in square brackets will give you the full details about the job and what you have to do to apply.

## 5 NANet

For students with a background in scientific computing, numerical analysis, or other applied fields, it may be worthwhile to investigate NANet, a weekly newsletter with information about conferences, online workshops, and jobs. A website for all the back issues is at <https://www.netlib.org/na-digest-html/> and you can

subscribe in order to get the weekly issues.

### Today's Topics:

- [MFEM Version 4.6](#)
- [Software Release: MORLAB 6.0](#)
- [New Book, Mathematical Theory of Finite Elements](#)
- [Core Imaging Library Meeting, UK, Nov 2023](#)
- [ALAMA2024, Spain, Jun 2024](#)
- [Faculty Positions, Mathematics, UC, Chile](#)
- [Tenure-Track Position, Applied Math, NJIT](#)
- [Tenure-Track Position, Mathematics at Arizona State Univ](#)
- [Tenured/Tenure-Track Positions, Computational Eng, UT Austin](#)
- [Professor Position, Applied Mathematics, Univ of Missouri-Kansas City](#)
- [Open Rank Position, Data Science for Health, Lehigh Univ](#)
- [Research Software Engineer Position, Uppsala/KTH/Orebro](#)
- [Postdoc Position, Data Science, Brazil](#)
- [Postdoc Positions, Numerical Methods for PDEs, Milano-Bicocca, Italy](#)
- [PhD and Postdoc Position, Mathematics, Stuttgart Univ](#)
- [PhD Student Positions, Computational Science, SDSU/UCI](#)
- [Contents, J Computational Mathematics, 41 \(5\)](#)

Subscribe, unsubscribe, change address, or for na-digest archives: <http://www.netlib.org/na-digest-html/faq.html>

## 6 The National Laboratories

Across the country, there are many national laboratories engaged in scientific research, with many opportunities for people with skills in mathematics, statistics or other scientific disciplines. These labs also have an extensive educational purpose, and conduct programs involving students at the high school, undergraduate and graduate levels.

Working at a lab is a sort of halfway position between academics and industry. There is more emphasis on team work and projects, but there is also respect for research, publication, and education.

National labs and institutes include NASA, NCAR, NIH, NIST, NOAA, NSA. In particular, the Department of Energy has 17 lab sites, including Los Alamos, Livermore, Oak Ridge, Fermi. These labs often include an internship program involving a temporary summer job, with housing and pay, which allows you to get a feeling for the work there.

Take a look at what's available at:

<https://www.energy.gov/jobs-national-labs>

Some labs or positions have citizenship or legal permanent resident (LPR) requirements, or the ability to pass a security clearance, so it's important to check the details of any program before you apply.

An internship at a national lab is an excellent thing to have on your CV.

## 7 Jobs Outside of Academia

Most mathematics graduates will not end up in academic jobs. That means you may have to search in unfamiliar territory, not even knowing what's available. SIAM (the Society for Industrial and Applied Mathematics) publishes a booklet *Careers in the Mathematical Sciences* which can help you to decide where to look. It describes people with math backgrounds working at various companies, gives their educational history, current salary, job title and duties, and allows them to speak about what it's like to work there.

The booklet is currently available at

SIAM.org

Careers

Resources

Careers in Math Sciences

Careers Brochure

or

<https://www.siam.org/Portals/0/Student%20Programs/Thinking%20of%20a%20Career/Careers%20Brochure%202022.pdf>

Page 6 presents the case of Jesse Berwald, working for Quantum Computing, Inc.



**Jesse Berwald**  
**PRINCIPAL SOFTWARE ARCHITECT**

**EMPLOYER**  
Quantum Computing, Inc.

**DEPARTMENT**  
Engineering

**LOCATION**  
Remote (I currently reside in Minneapolis, Minnesota, U.S.)



“Something to be aware of is that you will use your mathematics skills in a general sense solving very interesting problems, but it’s unlikely that you will directly leverage your specialty.”

**EDUCATION**  
B.S. Honors Mathematics,  
University of Michigan  
Ph.D. Mathematics, Montana State  
University  
**CAREER STAGE:** Mid

**WHAT DO YOU DO?**

As a software architect I interact closely with many levels of the organization. I ensure that hardware engineering projects align with requirements from sales and marketing. It is essential that the senior leadership understands the scope of a product and how to prioritize where we can take it. One example of a recent interesting project was we released a software interface to a new hardware device, which allows customers to solve integer optimization problems on a quantum computing device.

**What types of skills do you use?**

My foundational skills as a mathematician have allowed me to learn new skills such as quantum computing with minimal pain and suffering. Mathematicians are keen generalizers, which is an important crossover skill in many jobs, including software engineering. Project planning and management is foundational: decompose a six-month block of work into smaller milestones and deliverables. Nevertheless, most days require a much larger dose of interpersonal skill than any other skill.

**How are applied mathematics and/or computational science important to what you do?**

Applied mathematics and computer science are foundational to my work. Quantum computing leverages a wide range of tools, from machine learning to quantum physics. Staying abreast of new research means that I set aside time to read relevant research papers, too. Currently, architecting software for quantum computing involves a larger-than-average portion of the stack: at one end, an understanding of the underlying physics is often required; at the other end, one is tasked with implementing these ideas as machine learning algorithms in the cloud.

**What are the pros and/or cons of your profession/job?**

**Pro:** In my current role at a start-up, we are all focused on essentially a single product, which really helps to guide one’s work.

**Con:** Start-ups can travel a nonlinear path at times, which might involve a sudden change in the company’s direction, which can lead to feelings of instability.

**Does your job offer flexibility?**

My job is very flexible in terms of working hours and location.

**CAREER PATH**

**What career path did you take to your current position?**

My career path has been very nonlinear. I dropped out of high school to pursue bike racing and ended up finishing my last two years of undergrad at University of Michigan. The next five years included graduate school in Connecticut, a software position at IBM in Massachusetts, serving coffee, framing houses in Montana, and lots of rock and ice climbing. I reentered graduate school in Bozeman, Montana and graduated with a Ph.D. in mathematics.

After my Ph.D. I spent two years as a postdoc at William & Mary, then a year at the Institute for Mathematics and its Applications at University of Minnesota. Both of these postdocs focused on dynamical systems and topological data analysis. In 2014, I left academia for a data science position at Target, and after three years I transitioned to a sales engineer role at D-Wave, a quantum computing company in Vancouver, which ended up having many interesting collaborations with industrial partners. Now I work for a small start-up in the quantum computing realm, but have transitioned in this job from a quantum algorithm engineer to a software architect.

**ADVICE**

**What advice would you give to someone pursuing a similar degree or profession?**

Reach out to people you know in industry, pursue summer internships at national labs or companies, and learn to code in a modern language such as Python. The need for mathematical reasoning shows up in many unexpected areas.

**Was there anything that surprised you when you started out in your career?**

The number of people and technologies I regularly work with always impresses me. Developing a new product often involves much more work than a large journal paper.

**SALARY**

\$150K–\$300K + bonus and stock options

## 8 Investigate Employers Directly

Some of the top employers for MST graduates are:

- The Boeing Company
- Black & Veatch
- Kiewit
- Burns & McDonnell
- Missouri S&T, yes your alma mater!
- Ameren
- Accenture
- Garmin International
- Cerner Corporation
- Microsoft
- Missouri Department of Transportation
- Honeywell

If a particular company seems of interest to you, you can go directly to their web site and look for job listings.

web site: boeing.com

Choose tab "Careers"

Enter Search Keyword "Mathematics"

which finds more than 700 corresponding job openings. Here we show just the first three:

The screenshot shows the Boeing careers website search interface. At the top, there is a navigation bar with the Boeing logo and links for CAREER AREAS, WORKING HERE, STUDENTS EVENTS, BOEING.COM, SAVED JOBS, and a menu icon. Below the navigation bar is a search bar with the text "City, state or country" and "mathematics" entered. To the right of the search bar is a red button with a magnifying glass icon and the text "SEARCH JOBS". Below the search bar, the results are displayed in a list. The first result is "BOEING RESEARCH & TECHNOLOGY GRADUATE RESEARCHER – APPLIED MATHEMATICS, STATISTICS & OPERATIONS RESEARCH" located in Huntsville, Alabama, United States, with a date of 09/04/2023 and a "Save Job" button. The second result is "SPACE, INTELLIGENCE & WEAPONS SYSTEMS SOFTWARE ENGINEER" located in Los Angeles, California, United States, with a date of 09/11/2023 and a "Save Job" button. The third result is "SPACE, INTELLIGENCE & WEAPONS SYSTEMS SOFTWARE ENGINEER (SENIOR, LEAD, EXPERT)" located in Los Angeles, California, United States, with a date of 09/06/2023 and a "Save Job" button. Each result also includes a "Featured" label and a star icon.

**706 RESULTS FOUND FOR 'MATHEMATICS'**

**BOEING RESEARCH & TECHNOLOGY GRADUATE RESEARCHER – APPLIED MATHEMATICS, STATISTICS & OPERATIONS RESEARCH**  
Huntsville, Alabama, United States  
09/04/2023  
Save Job

**SPACE, INTELLIGENCE & WEAPONS SYSTEMS SOFTWARE ENGINEER**  
Los Angeles, California, United States  
09/11/2023  
Save Job

**SPACE, INTELLIGENCE & WEAPONS SYSTEMS SOFTWARE ENGINEER (SENIOR, LEAD, EXPERT)**  
Los Angeles, California, United States  
09/06/2023  
Save Job

## 9 Investigate Employers Through Job Sites

If you don't have a particular company in mind, you should at least have an idea of the area you are interested in, such as health, or finance, or software development. You can consider going to one of the general job search applications and explore what's available in that area.

These sites include:

- CareerBuilder;
- indeed;
- linkedin;
- monster;
- usajobs (jobs with the US government);
- ziprecruiter;

## 10 Internships

If you're not sure what you want to do, or even what you can do, an internship is a great way to get an early taste of what a particular job field is like. You get paid, you get trained, you make some personal contacts that will be very useful in the future.

An internship is usually a temporary summer job with a company or lab, during which you participate in some project or other activity under the guidance of an advisor. The advisor is there to give you some training and motivation, but also to monitor how well you are adapting to the tasks you are given.

An internship can result in getting a paper written, or a letter of recommendation, or a job offer. It is also a big plus on your resume, since it lets prospective employers know that you have already managed to work effectively within a group or company environment.

The SIAM internship website at:

<https://www.siam.org/careers/internships>

presents internships organized by subject area.

## Internship and Career Information in Industry, Research Institutions, and Government Labs

<input type="radio"/> Aerospace, Defense, and Security	
<input type="radio"/> Agriculture	
<input type="radio"/> Motor Vehicles and Related Products	
<input type="radio"/> Chemicals, Materials and Applications	
<input type="radio"/> Computers, Electronics, Software and Services	
<input type="radio"/> Consumer Products	
<input type="radio"/> Diversified Manufacturing	
<input type="radio"/> Engineering /Scientific Software and Services	
<input type="radio"/> Finance, Insurance, and Related Software and Services	
<input type="radio"/> Healthcare and Related Software and Services	
<input type="radio"/> Information and Internet Services and Related Software	
<input type="radio"/> Oil and Gas Recovery and Related Software and Services	
<input type="radio"/> Pharmaceuticals and Biotech	
<input type="radio"/> Research Laboratories/Centers	1 For Institutions
<input type="radio"/> Scientific Publishers	2 BIG Math Network
<input type="radio"/> Software and Related Services	3 Program Request
<input type="radio"/> National Laboratories	4 Internship and Career Information in Indus...
<input type="radio"/> Other Government Agencies	5 Text/HTML

## 11 The CV and other documents

When you apply for a job, there are a number of documents you will be asked to supply, which might include some of the following:

- a cover letter: a different one for each job application
- a curriculum vitae or “CV”: everything about you
- a resume: one page highlights of CV that apply to this job;
- a research statement: what you’ve done, and where it’s going;
- a teaching statement
- a diversity statement
- a list of reference letter writers

Even so, a few things are worth mentioning.

- You will want to write a brief (3 paragraph) cover letter customized to each job; what job you want; why they should be interested in you why you are interested in them;
- For now, you can think of your CV as just a long itemized list of your graduate career, including classwork, research, teaching, papers, conferences, awards, internships, fellowships, and membership in professional societies. Get all this down on paper, keep it updated, and let the Career Center help you format it later.
- Your teaching statement isn’t restricted to classes you taught. If you are looking for an academic job, you should try to document any work with undergraduates, including tutoring, giving a talk to an undergraduate club, or other projects.
- You need to “cultivate” people who will write you a letter of reference. Your advisor is a freebie, and you might have another faculty member who is familiar with your work and appreciates it. But it will

be most helpful if you can list respected people from other institutions who have worked with you, through collaborations, internships, or other interactions. It takes time to build up such relationships, but start looking now!

A personal web page is another way to “advertise” yourself. You might list open problems you are interested in, research activities, computer programs you have written, talks you have given. Your web page is another way to try to communicate with the mathematical world; it can give a potential employer some extra insight beyond the usual formal documents involved in the hiring process.

Some additional information that should go in your CV includes any programming languages you are familiar with. You should take advantage of any short workshops offered on such topics as data visualization, data frames with R, R Studio, 3D scanning. These skills can help you in your class and research work, but may also interest a potential employer. If you are looking for a job in industry, you might want to highlight any experience or knowledge of actuarial science, financial mathematics, machine learning, probability, statistics, since these are specific topics that a company may be searching for.

## 12 You must be more than just your transcript!

One thing that impresses employers is any early work experience or activity that you have already had.

For academic employment, your teaching activity will be looked at carefully. Were you a tutor, assistant, grader, or the principal instructor? If you were an instructor, did you get and report teaching evaluations? Were you involved with students in any other way, as an adviser, club president, or project leader? Did you teach a variety of classes, or higher level classes such as calculus III, or ODE’s? Did you receive any awards, scholarships, or fellowships?

Research universities will want to know whether you have already had some productive work, as evidenced by talks you gave at conferences, and papers you co-authored. They will also consider whether you would be a good fit with their current research groups. A school with a heavy emphasis on pure mathematics may hesitate to hire an applied person who would have no one to work with.

Both universities and industry will be very interested in any internships you worked on. You obviously had to make an extra effort to apply for such a position, and you were good enough to get it. You had to move out of your comfort zone, learn a new environment, work with a group, and pick up some extra skills during that time. These facts make a hiring committee more comfortable in considering you as a new employee.

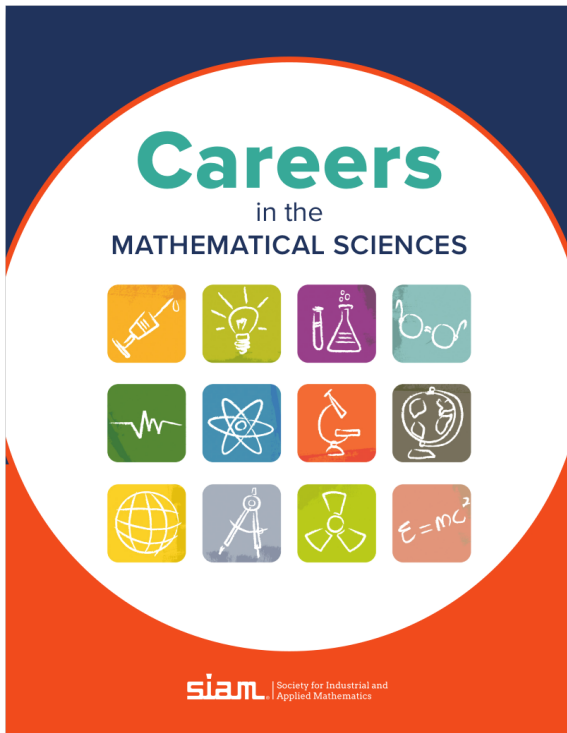
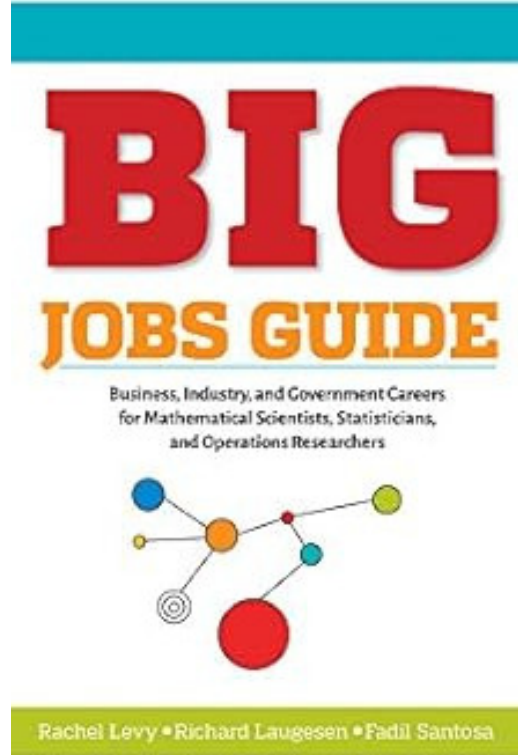
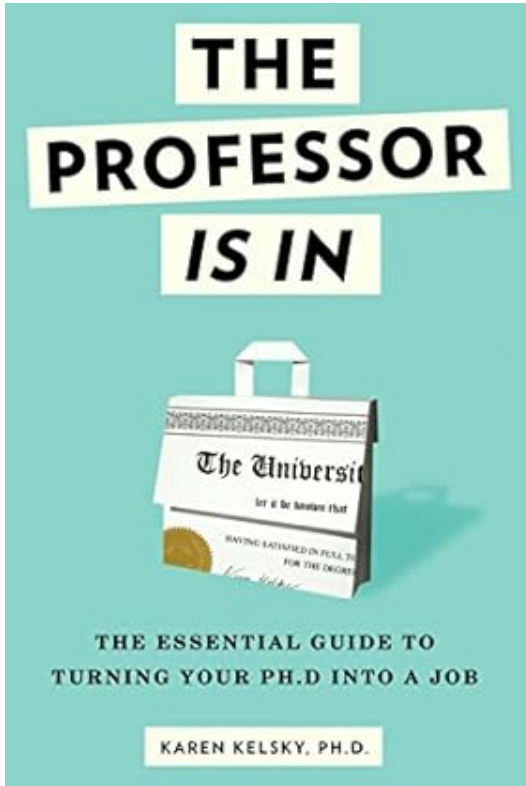
## 13 The MST Career Center

The University offers a career planning service, located on the third floor of Norwood Hall, with email [career@mst.edu](mailto:career@mst.edu), and website [career.mst.edu](http://career.mst.edu).

The center offers information about career fairs, career programs, networking events, job and internship search, mock interviews, and help with resumes and cover letters. They can tell you who’s hiring, and typical salary ranges.

You should visit the center, find out about the next career fair (scheduled for 20 February 2024), print your current CV, and discuss your job search. When you have a possible job in view, you should request a mock interview, to make you a little more comfortable with having to explain yourself to strangers.

14 Some Helpful Publications



## 15 Web links

- [https://people.sc.fsu.edu/~jburkardt/presentations/careers\\_2023\\_mst.pdf](https://people.sc.fsu.edu/~jburkardt/presentations/careers_2023_mst.pdf)
- <https://phdcomics.com/comics.php?f=1623>
- <https://www.mathematics.pitt.edu/graduate/graduate-employment>
- <https://orise.orau.gov/resources/stem/professional-development/becoming-a-postdoc/what-is-a-postdoc.html>
- <https://www.amstat.org/your-career/asa-jobweb>
- <https://jobs.siam.org/jobs/>
- <https://www.mathjobs.org/jobs>
- <https://jointmathematicsmeetings.org/jmm>
- <https://www.netlib.org/na-digest-html/>
- <https://www.energy.gov/jobs-national-labs>
- <https://www.siam.org/Portals/0/Student%20Programs/Thinking%20of%20a%20Career/Careers%20Brochure%202022.pdf>
- <https://jobs.boeing.com/>
- <https://www.careerbuilder.com/>
- <https://www.indeed.com/>
- <https://www.linkedin.com/>
- <https://www.monster.com/>
- <https://www.usajobs.gov/>
- <https://www.ziprecruiter.com/>
- <https://www.siam.org/careers/internships>
- <https://career.mst.edu/>
- <https://my.siam.org/Store/Product/viewproduct/?ProductId=29783110>
- <https://theprofessorisin.com/>