Congratulations, Seniors!

Our seniors will be graduating and heading out into the world in just a few short weeks. Spending four years with this year's graduates has been a truly wonderful experience.

Take some time below to find out what some of this year's seniors have planned for life after graduation, their favorite memories with the department, and advice to future math or stats seniors. Congratulations on a job well done, seniors!

Yicheng Shen

**Plans:** I will be starting my graduate program in Statistical Science at Duke University.

**Memories:** I love the things I learned in colloquium talks.

**Advice:** Math and Stats are both fun and applicable, and you will find them so valuable when using them in real life!

Stuart Kraabel

**Plans:** I will be student-teaching at Highland Park High School in St. Paul next fall, and will get my teaching license in mathematics for grades 5-12 upon completion of my student-teaching. Afterwards, I’ll be looking to start teaching full time!

**Memories:** Real Analysis with Rafe Jones. Highlight of my existence. Also that time Rafe had a zoom pizza-making session with his daughters. That was awesome.

**Advice:** If you’re interested in becoming a math

Collin Smith

**Memories:** Hangman tournaments in CMC!

David Krakaur

**Plans:** I will be moving to New York and working a job in finance, at least to start. Long term… who knows?

**Memories:** Eric Egge once gave a zoom lecture in a Bon Appetit student worker shirt, which I humbly suggest would make a great choice of uniform should the department ever adopt a formal dress code.

**Advice:** If you’re ever curious, ask your professors how what you’re learning fits into mathematics more broadly. There’s so much out there to learn… you will never run out of potential new things if you’re interested.
teacher, you should check out Carleton’s teaching licensure program through the Ed. Studies Department. It’s a pretty unique opportunity that allows you to get your teaching license at the same time as your bachelor’s, and without having to pay for grad school. But check it out early! It takes a bit of planning to fit everything in.

Colette Pollard

**Plans:** This summer I am attending a biostatistics program in Colorado, and then traveling a little before I start work in the fall.

**Memories:** The ice cream socials were pretty fun. I have also really enjoyed the Bayesian vs frequentist arguments I have witnessed, and I would love to see a department wide debate!

**Advice:** Take data science as soon as possible! It’s useful for other stats classes and it’s generally useful.

Ben Hafner

**Plans:** Intern for the Shull Lab at Northwestern University (materials science research).

**Memories:** Doing homework in the MSC freshman year.

**Advice:** Take ODE and PDE if you like applied math or physics.

Jake Martens

**Plans:** I’m moving to Minneapolis to work as a software engineer.

**Memories:** Studying abstract algebra with my buddy Mika Cooney.

Audrey Gao

**Plans:** I will be scribing in Boston for a year, then going to med school.

**Advice:** Do your homework with people! Find some math/stats buddies that you work well with and the work will be much easier.

Oliver Calder

**Plans:** I’ll be working as a Firmware Engineer at Seagate in the Twin Cities.

**Memories:** As an underclassman, hanging out in the Math Skills Center with the seniors was a lot of fun. Hearing about their experiences in math classes and during internships, learning about their plans after graduation, and listening to their at times bizarre conversations and stories all made me feel like part of a community of great people and helped to guide me in my own path at Carleton and beyond.

**Advice:** Don’t feel a rush to take as many math courses as you can, as fast as you can! I’ve most enjoyed the math classes where I’ve had the time and mental space to really sit with the material, think through proofs and problem sets, and feel like I’m truly understanding what we are working on. I’d suggest taking at most one math class at a time if you can (and sometimes none!), so you can feel fresh and excited and make the most of each one.

**Bonus:** I would like to thank Alex Barrios for reigniting my passion for math and ultimately inspiring me to become a math major. His approach to presenting material, building up ideas from axioms and prior knowledge until we developed a deep understanding of why the theorem or statement was true in general, really resonated with me. His teaching fundamentally changed the way I approach proof and knowledge in the rest of my classes and throughout other parts of my life.

Paul Hinton

**Plans:** I will be working in Denver as a research
Mika Cooney

Plans: I am going to be living in Washington DC, working at Huron Consulting as a higher education consulting analyst!

Juanito Zhang Yang

Plans: I will be working as a Software Developer Engineer at Palantir Technologies in New York City. Despite going to industry initially, I hope that I will eventually make my way back to graduate school to study Mathematics.

Memories: I loved coming to the Math Skills Center during my sophomore year. I enjoyed working on problems around my peers, which was very helpful as I began taking electives. Many of the seniors that year also liked to hang out there! That year, the MSC was my preferred study spot.

Last year, I took combinatorics with Eric. One time, in one of the recorded lectures, he wore a student manager shirt from Bon Appétit. At that point my mathematics journey achieved a local maximum; it was crazy 😱.

Advice: I wish I had done more of this: Talk to the people around you! Collaborate! Go to the Math Skill Center to work on problems with your peers, it there not just for tutoring!

Also, check out the Problems of the Fortnight!

Karryn Leake

Plans: For now, I will be working as a data scientist for Digi-Key Electronics. In the future, I hope to pursue some form of grad school in either statistics or data science.

Memories: I do not have a specific favorite memory, but I enjoyed working and getting closer with my comps group and Adam! Additionally, I have so many great late night memories sitting in the stats lab.

Advice: In the words of my beautiful friend, Margot Shaya, "No good math happens after 10 pm."

Emily Schulenberg

Plans: I accepted a one-year Weitz Fellowship position at the Women's Fund in Omaha. I will be helping with policy development and research, and doing some data analytics. After that I am not sure what I will be doing but I hope to go to graduate school in the future.

Memories: My favorite stats memory is sitting in the stats lab with other majors. I have made some of my closest friends through the department and we would often sit in the lab and talk for hours. I also enjoyed working with my comps group and seeing Bubbles (my pet jumping spider) become both the mascot of my comps group and the stats lab.

Advice: Explore your options! Math Structures can really help you decide whether you are a math or stats major (at least it did for me). Definitely study abroad if you have the chance. Group comps is a lot of fun and a great opportunity to get to know your other majors.

Bonus: Long live Bubbles.
Yuanhao Zou

**Plans:** I’ll be traveling for a year through the Watson Fellowship. Then I’ll start my studies for a PhD in history at Stanford.

**Memories:** Working on real analysis in spring 2020 and forgetting that the world was in chaos.

**Advice:** Start working on your individual comps early!

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Noah Pinkney

**Plans:** Graduate school in physics.

**Memories:** Once in Real Analysis 2, I think I answered three of Rafe’s questions in a row during a Zoom lecture by gesticulating at my camera without unmuting.

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Jeremiah Mackin-Alonzi

**Memories:** Department events like the ice cream socials, fun classes like Data Science or Regression, getting to do research, bonding with my Comps group, leaving sticky notes on Adam’s door, Katie’s cat and children constantly breaking into her office during Zoom meetings

**Advice:** Try to get involved in the department, whether through attending events or by getting a job as a grader/tutor/assistant/SDA. This way you can get to know your professor and fellow majors a lot more.

**Bonus:** Long Live Bubbles.

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Shira Julie

**Plans:** I will be moving to Boston after graduation to work for an energy consulting company!

**Memories:** My favorite Carleton math memory is working on my Finite Topological Spaces comps

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Eva Airoldi

**Plans:** Associate Data Scientist at CH Robinson.

**Memories:** Working on comps with my group.

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Xander Roti

**Plans:** Currently I have a project manager position at Epic, although I am interested in going to Law School in the long term.

**Memories:** My favorite memories are the times when I would go to ask Alex Barrios a quick question in office hours and end up talking to him for hours about math and life.

**Advice:** Don’t be afraid to build connections with your peers in your major!

**Bonus:** Go math and stats!

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Tom Patterson

**Plans:** Student teaching at a school in New York City, working toward a Master's in Teaching in Secondary Math Education from NYU.

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Dominic Enriquez

**Plans:** After college, I will be working in the tech industry as a product manager.

**Advice:** YOU BELONG HERE! There were so many days where I felt like I was the dumbest person in the room, that I was the only one who didn’t understand. It was through my amazing peers and professors that I was able to shake these feelings.

**Bonus:** Long live Bubbles!
project with my awesome comps group and our awesome (and ~nice~) advisor, Steve!

**Advice:** Never forget that linear transformations respect both addition and scalar multiplication!

**Bonus:** Long live Bubbles.

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**Libby Nachreiner**

**Plans:** This summer I will be doing a data analytics internship with Share Local Media, a direct mail marketing startup in NYC. Then I will be abroad in Madrid in the fall studying Spanish. After that, I hope to work in some sort of data analysis or data science role, possibly mixed with public policy stuff.

**Memories:** Favorite memories include coding in R with friends, hours spent with Russ in the Math Skills Center, spending time in the stats lab, doing math research over zoom with Marcella Manivel, and writing up lab reports! I really loved all of my stats electives and enjoyed culminating my stats career in my comps. GeMMS events were also definitely a highlight!

**Advice:** For stats majors, I would recommend taking data science early. It is a great course to build up fundamental skills and comfortability with R. I would also advise taking consulting as many times as you can. It’s great experience for applying theory and building skills that looks great on resumes and sounds good in interviews! On that note, definitely use all of the resources that the Career Center has to offer throughout your entire time at Carleton. Besides that, collaborate with others as much as you can and go to office hours/stats lab/math skills center! Always prioritize sleep/health because it makes a world of difference, and don’t forget to have fun :)

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**Soren DeHaan**

**Plans:** I’m going to IU Bloomington to research information networks and knowledge automation!

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**Allen Yuan**

**Plans:** Work and go to graduate school in 2-3 years.

**Memories:** Presenting my comps.

**Advice:** Take statistical consulting as many times as you can.

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**Bryan Boehnke**

**Plans:** This fall, I will be moving to Seattle to pursue a PhD in math at the University of Washington.

**Memories:** Working with others gave me the chance to meet several of my closest friends. Late night study sessions often gave a good excuse to spend some time working and more time finding distractions and laughs in between.

**Advice:** Take care of yourself and others. There is a lot of wonderful and exciting math that you can explore here, but the people that you do this with are even more important. You can learn so much from everyone here, so ask questions, make mistakes, and be humble, respectful, and kind.

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**Risa Fines**

**Plans:** I plan to take a gap year and apply to graduate school in mathematics.

**Memories:** Probably my comps. I loved my topic, I loved working on the presentation and the paper, and I loved seeing how the materials in my comps packet—which initially seemed like articles on three different topics—were actually closely related to one another. Also, all the time spent on final projects with various group project partners in the MSC.

**Advice:** Go to office hours--make sure you communicate with your profs in general. Consider doing BSM. Start the homework assignments early. Scare yourself into not procrastinating on your comps (and talk to your advisors about it if you
Antonia Ritter

Plans: I'll be a software engineer at CrowdStrike in Minneapolis starting this fall.

Memories: Spending hours in the Math Skills Center with friends, pushing our brains to the limit doing analysis problem sets. Also, working with my comps group, even when we were updating all our figures half an hour before our presentation!

Advice: Feeling confused is an essential part of doing math, keep at it! And talk to your professors, they're nice and want to help you.

Bonus: It's been a pleasure being your Gazette editor :)
recognized the importance of social activism in all its forms, to students, especially, he modeled how a scholar can use calm reason to defend the powerless and bring about justice—all while maintaining an attitude of optimism, humor, and joy. The prize will be awarded each year to one or more students who show leadership promoting diversity along racial, ethnic, disability, religious, sexual orientation, gender, socio-economic, and all its other dimensions. The department is pleased to name Ana Pina Marcelino and Mika Cooney the co-winners of the Schuster Prize. Congratulations Ana and Mika!

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**Problems of the Fortnight: So Long, Farewell?**

First of all, it’s a pleasure to report that Juanito Zhang Yang solved both the first problem posed May 6 and the first problem posed May 20; thus he should check with Sue Jandro in CMC 217 about selecting two items from the B.B.O.P.

Looking back, it’s also been a pleasure to present this feature in the *Gazette* for most issues, starting with a mimeographed version dated March 26, 1985. A few days before that, Jeremy Resnick ’85 had expressed disappointment that the department (of Mathematics, at the time) was no longer issuing a regular newsletter (apparently, there had been one earlier in his Carleton experience; I wouldn’t know the details, as 1984-85 was my first year at Carleton), and offered several challenge problems for us to get things started again. By the fall of 1985 the *Goodsell Gazette* (which was, in fact, produced in Goodsell, where the department was housed at the time) had a regular masthead, and for many years it was a weekly publication which featured two new problems each week. Many of these problems, along with problems posed by colleagues at St. Olaf, ended up in two MAA publications: the *Wohasca County Problem Book* (Gilbert, Krusemeyer, Larson) in 1993 and an expanded version, *A Mathematical Orchard* (Krusemeyer, Gilbert, Larson) in 2012. When the *Gazette* transitioned to a bi-weekly format in the fall of 2014, naturally Problems of the Week became Problems of the Fortnight. Over the weeks, fortnights, and years, this corner of the *Gazette* has also been edited for a term or an academic year by the late Sy Schuster and Steve Galovich, and by Deanna Haunsperger, Sam Northshield, Loren Larson, Tina Garrett, Gail Nelson, Andrew Gainer-Dewar, Tommy Occipinti, and Mike Cohen - in some cases, for more than one stint. (Abject apologies to anyone I may have missed.) Thanks again to all of them for carrying on the tradition, and to all solvers, in- and outside the Carleton “bubble”, who submitted solutions and/or other feedback on the problems.

The end of the academic year is upon us and I am retiring. There is much important and urgent work to be done in our department, and it is unclear whether the Problems of the Fortnight will continue without interruption. If you would like them to - if it would make you sad not to have this regular feature of the *Gazette* continue - you may want to contact Katie St. Clair (in her capacity as department chair) to let her know. Meanwhile, all the best to you as you finish up the term, head off for the summer, graduate, or whatever comes next in your life. Stay well!

- Mark Krusemeyer

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