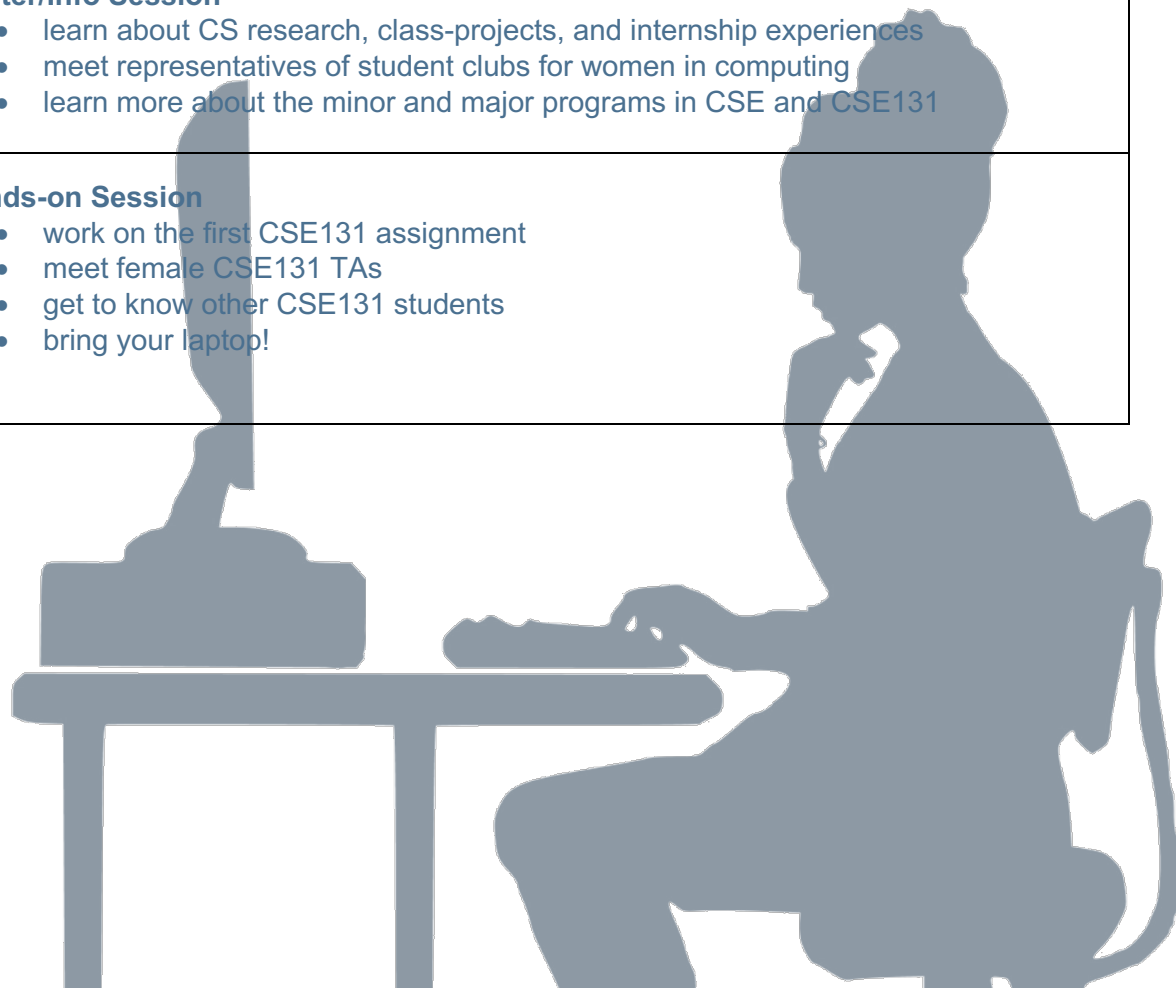


# WEBELONG! CS@WASHU

PROGRAM SUNDAY SEPT 1<sup>ST</sup> 2019

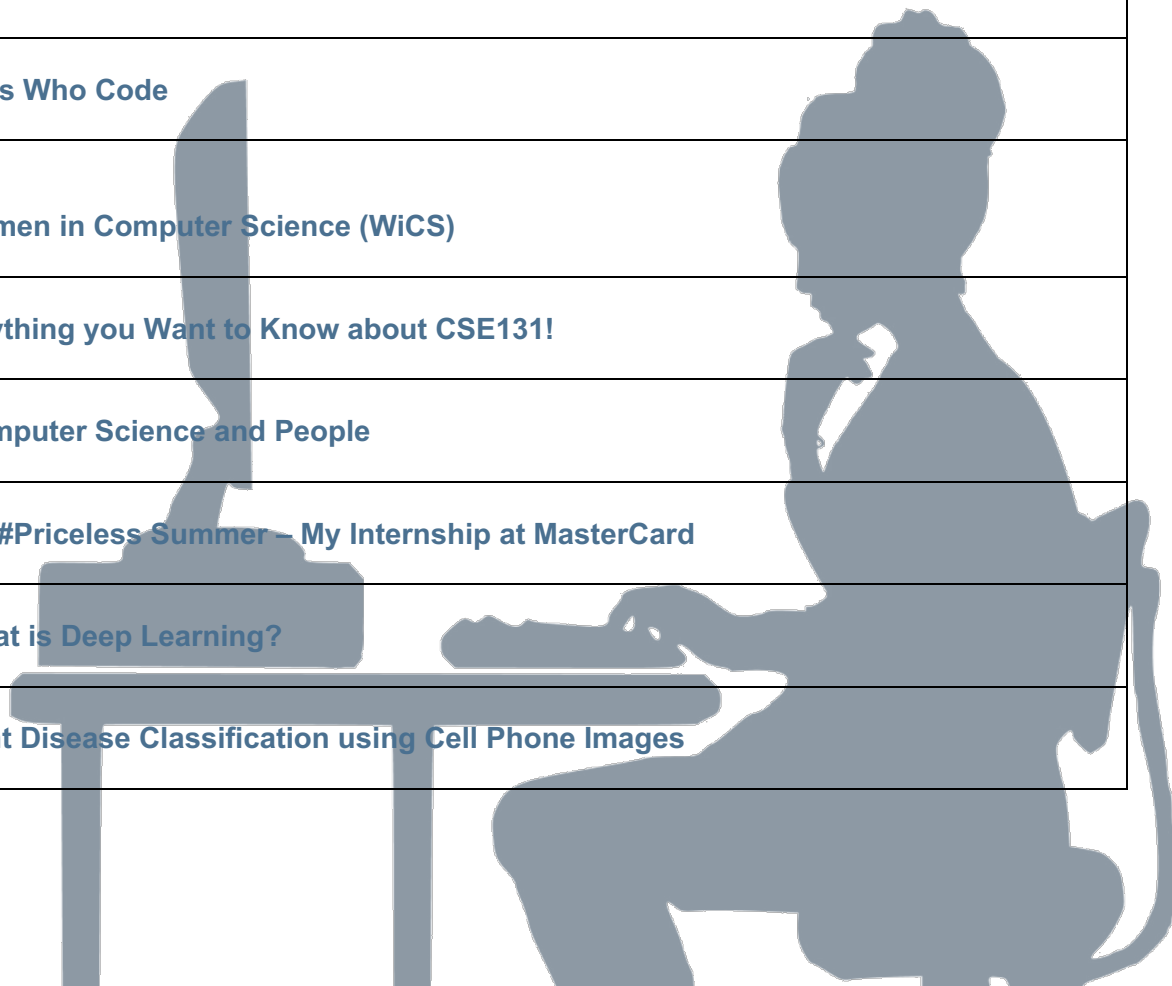
8:30-9:00am <b>Lopata Gallery</b>	<b>Welcome</b> <ul style="list-style-type: none"><li>• get your SWAG/info bag and name tag</li></ul>
9:00-10:00am <b>Lopata Gallery</b>	<b>Friendly Breakfast</b> <ul style="list-style-type: none"><li>• enjoy breakfast</li><li>• meet upperclasswomen and faculty in computing</li><li>• network and exchange contacts</li></ul>
10:00-10:45am <b>Lopata 101</b>	<b>Panel: What is it like to be a woman in CS?</b> <ul style="list-style-type: none"><li>• hosted by Angelina Lee (CSE faculty)</li><li>• panelists: Alvitta Ottley (CSE Faculty) Caitlin Kelleher (CSE Faculty) Emily Wilson (Girls Who Code and CS major) Mariah Yelenick (CSE131 Head TA and CS major) Jackie Wong (WiCS and CS major)</li></ul>
10:45-11:45am <b>Lopata Gallery</b>	<b>Poster/Info Session</b> <ul style="list-style-type: none"><li>• learn about CS research, class-projects, and internship experiences</li><li>• meet representatives of student clubs for women in computing</li><li>• learn more about the minor and major programs in CSE and CSE131</li></ul>
11:30-12:30pm <b>Urbauer 214</b> <b>Urbauer 216</b>	<b>Hands-on Session</b> <ul style="list-style-type: none"><li>• work on the first CSE131 assignment</li><li>• meet female CSE131 TAs</li><li>• get to know other CSE131 students</li><li>• bring your laptop!</li></ul>



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## POSTER/INFO SESSION

Mariah Yelenick	<b>Information Visualization Final Project (Wanna Date-A)</b>
Julia Dai	<b>Comparing Image Denoising Methods to Improve Image Resolution</b>
Lucia Zhang	<b>Having Fun in Programming - My Experience of Java, Python, etc. at WashU</b>
Yana Malysheva	<b>Analyzing Puzzle-Solving Through the Lens of Debugging</b>
Amy Kwan Alice Herrmann	<b>Comparative Transcription Start Site Annotations for Muller D Element Genes in Three Drosophila Species</b>
Maede Zolanvari	<b>Security of Industrial Internet of Things Using Machine Learning</b>
Priyanka Iyer	<b>Engineering Data Analytics at Caterpillar – My Internship Working with Sensor and IoT Data</b>
Emily Wilson	<b>Girls Who Code</b>
Alexis Park Jackie Wong	<b>Women in Computer Science (WiCS)</b>
Alexis Costales	<b>Anything you Want to Know about CSE131!</b>
Sandra Matteucci	<b>Computer Science and People</b>
Oyin Sholeye	<b>My #Priceless Summer – My Internship at MasterCard</b>
Kathryn Sarullo	<b>What is Deep Learning?</b>
Marion Neumann	<b>Plant Disease Classification using Cell Phone Images</b>



# WE BELONG! CS@WASHU

## MENTORING BREAKFAST

### IT'S GREAT TO BE A WOMAN IN COMPUTING!



**Tara Salman**  
Graduate Student

I was interested in CS since the first programming class that I took in high school. It literally "had me at Hello" at that time. This happened for several reasons including the variety of fields that you can end up in and the job opportunities to name few.

All CS projects are cool. Probably the coolest for me was in building a robotic system controlled by hand gestures. The project used Kinect (Microsoft Xbox) and Nao robot (one of the coolest robots that CS allowed me to play with). The output of the project was so especially when presented at a local university context. The challenge however was with integrating the two devices which we collaborated with other undergraduate in order to finish the coding.

Talk to me about...  
ROBOTS



**Alvitta Ottley**  
Assistant Professor in CSE

I still remember my first bit of code. I was in high school, and we had to swap the values of two variables. CS encapsulates everything I love about problem-solving. The challenge, the self-doubt and proving myself wrong, putting in the effort, sometimes struggling, and the joy of finding the solution.

My coolest experience was traveling to Heidelberg, Germany for Heidelberg Laureate Forum. I met past Turing Award winners such as Vint Cerf, Leslie Lamport, and Barbara Liskov. We went on a river cruise and had dinner in the Heidelberg castle. I heard their stories, and it humanized their experiences. They all had two things in common. They had no idea how impactful their work will be, and they all dreamt big.

Talk to me about...  
VISUALIZATION



**Claire McShane**  
Sophomore / CS Major

I became interested in CS the first semester of my first year (last year). I took CSE 131 because I figured I'd need it down the road, and it was a useful skill. Little did I know I'd love how much freedom I'd have in using coding to take on both academic and creative projects. I transferred into McKelvey and declared a CS major by the end of my first year!

Recursion was initially a difficult concept for me to grasp, but I was determined to do the "Persian Recursion" extension project in CSE 131. Basically, you made a program that drew lines of different colors in a certain fashion that created a Persian rug image. I really couldn't visualize the way the program was supposed to run at first, but I ended up drawing a ton on paper to aid my understanding. I never thought CS classes required any physical materials. I was very wrong! Eventually, I played around with tons of different ideas and ended up making tons of really pretty rug designs. My TA was impressed with me when I submitted it, so that made my day.

Talk to me about...  
CSE131



**Priyanka Iyer**  
Sophomore/CS Major

I became interested in CS as soon as I started classes last fall. As a student in Olin, I didn't particularly enjoy my business classes nor the trajectory it seemed to be taking me. I'd never taken any sort of coding classes in high school, so it was only in college that I discovered my love for programming. I realized I wanted tangible technical skills that would allow me to create things, not just manage them.

My favorite part of my internship this semester was being able to dive right into creating Python scripts that batch process data and manipulate that data on Tableau.

Talk to me about...  
MY INTERNSHIP



**Shruthi Ramalingam**  
Junior / CS Major

I became interested in CS in high school when I competed in a robotics competition and had to learn some basic Java programming for maneuvering our mechanical robot during the competition. I always planned to at least minor in CS but it wasn't until my summer research experience at the Optical Radiology Lab (summer after freshman year) working on a Python project in which I realized I wanted to learn more and get better at programming.

I am currently taking part in an internship at Verizon Connect in which we are working on optimizing the application level route/messaging protocol that the company's hub device utilizes in order to send driver information to the web application based front end. We are working end-to-end, first by configuring the device side (client side) to publish data to a broker (AWS cloud), then having a web consumer application subscribe to a broker, then have the data stored in a database, where it is then pulled from another web consumer for the web application, and then where it will be displayed on the front end of the web application. I have never worked on a CS project this large and complex, and with such a steep learning curve. As I have only taken a year of computer science, I am not as fully comfortable with programming as others who are more experienced are, so the hands-on experience has been amazing and I have already learned so much in these few weeks simply by "doing" and getting my hands dirty. I specifically have really enjoyed my internship experience so far because the team that I am working with is very collaborative and helpful and understanding and we all work together on several sides of the project. As the entire project is end-to-end, we have divided into certain specific roles but it is also a little fluid so we can all get experience doing multiple aspects.

Talk to me about...  
MY INTERNSHIP



**I-Ting Angelina Lee**  
Assistant Professor in CSE

I took an intro to CS course just to get my mom off my back (she nags), but it turns out that I loved it. I loved the software design aspect (of course it turns out that CS is much more about software engineering, but that's how I got hooked) and decided to pursue it as my major.

The project I am working on now... I work on making parallel programming easier for masses (i.e., programmers who do not have strong expertise in parallel programming). We are currently looking into common desktop software / web service code to see how one can write such programs easily using high-level parallel language abstractions.

Talk to me about...  
PARALLEL COMPUTING



# WEBELONG! CS@WASHU

## MENTORING BREAKFAST

## IT'S GREAT TO BE A WOMAN IN COMPUTING!

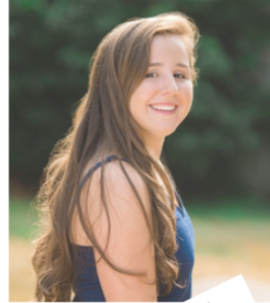


**Jackie Wong**  
Senior / CS Major

My first experience with CS was a bootcamp on HTML and CSS during my junior year of high school. During this bootcamp, I helped a local business create their own website. The moment I saw how happy the owners were filled my heart with joy and sparked an interest in CS. It wasn't until my first year at Washu and a First-Year seminar called "The Digital Society" that I began to seriously consider a career in technology. After learning about the many different applications of CS, I was inspired to continue down this path.

The coolest CS project I have worked on is my project for my latest internship at Disney. I'm working on a project to create a dashboard for my team to monitor the activity of APIs across Disney that alerts my team if there is ever odd behavior. This project is really cool because it will help the team during high trafficked times such as Fantasy Football for the ESPN team at Disney. My biggest challenges have been learning a framework I had never learned before and the biggest things that helped me overcome it are testing and lots of reading as well as knowing when to reach out for help so that I can proceed with the rest of my project much faster.

Talk to me about...  
DISNEY

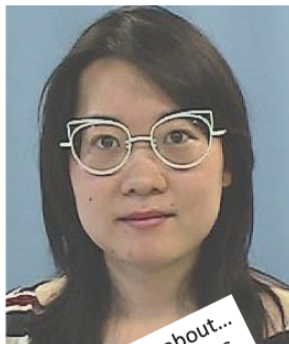


**Anda Gavrilescu**  
Sophomore

Growing up in Seattle, I initially avoided computer science because I wanted to pursue my career from a place of passion rather than a place of comfort. After looking into different career paths and not finding something I was excited about, I finally took APCS after my parents begging me to for years. Without thinking, I started coding in my free time and getting really excited about new projects, which made me realize that I found my major!

I've had a couple of really cool projects, but my favorite was probably my final project for Web Development, a class I took my first semester at WashU. The professor gave us no boundaries to what our final project was, except to incorporate some APIs into our design. Following my passion of music, I made a lyrics website (like Genius), where you could look up lyrics to a song and artist of choice. If found, it would generate the title of the song, the artist, the lyrics, a description of the artist, the artist's most recent video, and 5 other artists similar to the one you looked up. In concept, it's fairly simple, but for me, I thought it was a glimpse into the actual career of computer scientist, which is one of the most fascinating things about the field.

Talk to me about...  
WEB DEVELOPMENT



**Lucia Zhang**  
Graduate Student / Business Analytics Major

As a student majoring in Business Analytics with specification in Supply Chain, I chose CS courses from engineering school to add up to my programming tool kit for real world problems, as well as to back up my future career opportunities. While I learned several programming languages and algorithms as a foundation, I also chose courses in data analysis and system as an interest. When studying analytics in business school, I think the CS courses strengthened my coding skills, make me more comfortable in computing, and help me to solve business problems with application of IT.

The coolest I have had in CS is in the previous summer, I can start to work remotely online as a freelancer with total authorization of my schedule. I used python and sql to clean and analyze pharmacy data and generate business reports for the clients.

Talk to me about...  
DATA ANALYTICS



**Sophia Rosset**  
Sophomore/CS Major

I was first introduced to CS in high school when my dad suggested I make my own running log program. I was baffled by this remark – I didn't know the first thing about programming. Eventually, I decided to take my high school's introductory CS course. Using the basic coding that I had absorbed from the class, I made a simple running log program that was tailored to my personal needs. Being able to apply code to something I loved is what sparked my interest in CS.

The summer before my Senior year of high school, I attended the Girls Who Code Summer Immersion Program. At GWC, I was exposed to several different coding languages and sectors of the tech industry through interactive lessons, group projects, and guest speakers. My favorite part of the program was working with my peers to design a news website targeted towards teens.

Talk to me about...  
GIRLS WHO CODE



**Christabel Waylace**  
Graduate Student

Always interested in robotics. After graduating from Electronics Engineering I "discovered" the most exciting part was their intelligence, so I switched to CS to do research in AI :)

The coolest experiences I've had are not related to the project itself, but to the teamwork behind it: the struggle at first and how we all collaborate to have a successful experience. One of the most relevant was organizing a Summer school in CS with almost no funding: we only had access to the university resources (printing and computer lab). The target audience was 10 to 15 years-old children. We managed to advertise, give students a ride to and from school, create the curricula, and find teachers. It was a success thanks to the involvement of the team who volunteered their time and in some times their own resources.

Talk to me about...  
RESEARCH



**Erin Barillier**  
Sophomore / Physics Major

My father is a computer programmer, so when I was younger I would always try and follow along with him (as best I could). So he gave me an account on the computer in the basement, and I would try and work from the terminal and figure out the commands. He got me a couple books on programming, but I kind of dropped it for a bit. Then in the spring of my freshman year, I took 131 and started to really enjoy it and see it as a really creative exercise rather than just boring and robotic. Now, I do a lot of programming for my research in the physics department.

I really enjoyed making a game. The final lab was really fun because it was so open and allowed you to see the basis for a lot of the games you see in app stores. You got to be creative and see how a lot of the professional programmers built on these simple skillsets.

Talk to me about...  
CS & PHYSICS

# WE BELONG! CS@WASHU

## MENTORING BREAKFAST

## IT'S GREAT TO BE A WOMAN IN COMPUTING!



**Katie Steinmeyer**  
Sophomore

I became interested in computer science after taking CS 131 in the spring of my freshman year (this past semester). I went in to the class believing that programming would be purely mathematical and formulaic; to my surprise almost every project we were assigned throughout the semester allowed for creativity in both writing the code itself as well as visually presenting the data/project.

The coolest project I've gotten to do so far was making a video game for my final project in CS 131. The assignment allowed for a lot of creativity and variation in each student's project. Being able to design an interactive visually pleasing game after one semester of class was exciting to me.

Talk to me about...  
CSE131



**Katie Lund**  
Sophomore / CS Major

I first became interested in CS when I took a web design elective in eighth grade. While I was originally looking forward to the design portion of the class, I soon realized that the rule-bound elegance of the coding aspects was even more exciting to me.

The coolest experience I have had so far was my internship this past summer. I worked at a startup called Invisibly. Their goal is to change the way ads are served to users to make it a more engaging and valuable experience for them. I worked on an android app where you can view movie trailers, swipe right or left to rate them, and get a chance to win the full movies. It has been great to work in a small startup environment and have access to real projects and actual company developers. One of the challenges, however, was being the only female intern in the office. I overcame this by telling myself to be confident every day before going in to work, and always putting my best into everything so that I could feel proud of what I had done.

Talk to me about...  
MY INTERNSHIP



**Kathryn Sarullo**  
Graduate Student

When I started undergrad in 2014, I was originally a math major looking for a related minor on google and found computer science. This was the first time I'd ever heard of it before. Then, my freshman year, I took one computer science class and fell in love with it and made it my second major. It was fun and interesting because every program I wrote was like solving a puzzle in a way. It gave me a great sense of accomplishment when the program I wrote ran the way I wanted it to and I wanted that every day.

The by far coolest computing experience I've had was attending Grace Hopper for the first time my junior year. My college was small and had few women in our CS program so to get out and meet other females in the field was awesome and inspiring. The most fun project I did in undergrad was create a text adventure game from scratch in c++ because it allowed for so much creativity and it's nice to see the progression of a project you did that started from nothing.

Talk to me about...  
GRACE HOPPER



**Athena Tabakhi**  
Graduate Student

It all started from a command-line game (in NC DOS operating system) that I used to play with. Our very first computer had a large white case, during my childhood and I just wanted to see what's inside that white box. My curiosity developed the more I learned about that white box. I wanted to be the one who tells that white box what to do. Here I am, pursuing my Ph.D. in Computer Science.

The coolest project, I have been working on is the Smart Home Automation System. We apply state-of-the-art models and algorithms to schedule smart devices within smart homes in an efficient manner which help home occupants to control the energy consumption in their homes.

Talk to me about...  
RESEARCH



**Maede Zolanvari**  
Graduate Student

When choosing the field that I want to persuade, first year undergrad in college, computer was my third choice. So, I went with the first, Electrical Engineering. After 6 years and getting a master in that field, I even started my PhD in EE. Life happened and after a week, I chose to switch to CS. Now, 4 years later in this field, I can see what I have been missing all those years... But they say better late than never, right?

The coolest project that I have done is during my early interactions with python that I managed to automate processing a text document to output the words that we're interested in. I was over the moon that my code was working. Also, during a game app development in Java, my design accomplishment made me so happy that I was mesmerized by staring at my desktop for hours, looking at the balls bouncing the wall back and forth in the game, lol.

Talk to me about...  
RESEARCH



**Hila Ben Abraham**  
Lecturer in CSE

Growing up, I never considered myself as a "computer girl". On the contrary, in high school, I was surrounded by others (mainly boys) who knew everything about computers and programming, and I couldn't understand their enthusiasm. I was about 18 years old when everything changed. I grew up in Israel, where every 18-year-old boy or girl must serve 2-3 years in the Israeli Defense Forces (IDF). The IDF recruited me to their computer division and trained me to become a programmer.

The project I remember the most was during my IDF training, where we were asked to program the famous Nokia "Snake" game in pseudo-code, and then in assembly! It was the first time I realized the "magic" of translating an end-user application into machine-language, and it was when I decided to pursue a career in Computer Engineering to better understand this magic.

Talk to me about...  
CYBER SECURITY



# WE BELONG! CS@WASHU

## MENTORING BREAKFAST

### IT'S GREAT TO BE A WOMAN IN COMPUTING!



**Emily Wilson**  
Senior / CS Major

It took me a long time to decide to study computer science! In high school I was a hard-core speech and debate student and I loved my English, Biology, and Psychology courses. My second semester freshman year though I took my first CS course and I really enjoyed it, and sophomore year I eventually decided to switch into engineering.

Since then, I've been lucky enough to work on a lot of cool things (shout out to Girls Who Code and being an undergraduate TA!), but I think the best experience I've had so far was getting to intern at Facebook this summer in Seattle. I got the opportunity through Grace Hopper (another amazing experience) and it was my first time working on a project that reaches millions of people. I felt like I was in an atmosphere that I could really grow as a programmer and explore projects that interested me, and I got to learn so much from the people I worked with – I'm incredibly excited to bring a piece of that atmosphere back with me to WashU for senior year!

Talk to me about...  
GRACE HOPPER



**Mariah Yelenick**  
Senior / CS Major

Hi everyone! I'm a senior with a double major in Computer Science and Statistics. I'm also the Head TA for CSE 131 (Intro to Java). This summer I was a Data Analytics Intern at the Federal Reserve Bank of St. Louis for the Treasury Division.

The "coolest" project I've ever worked on was in high school during the summer before the 2016 Presidential election. I worked for a startup called TweetSense where we used sentiment analysis on Twitter data. I couldn't figure out why there were no results for Donald Trump but discovered it was because "trump" was a positive word in the sentiment analysis classifier.

Talk to me about...  
CSE131

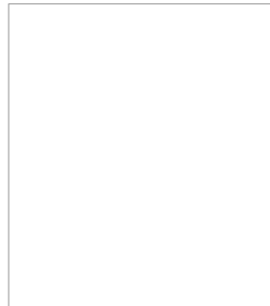


**Marion Neumann**  
Senior Lecturer in CSE

I didn't really get into computing until my masters project, where I used machine learning to predict the traffic volume for every street in Germany. As a math major I was so excited about doing something applied and useful that I pursued a Ph.D. in machine learning. That's when I really started to become a computer scientist using a Linux computer and appreciating everything command line!

One of the coolest projects I worked on so far was developing a machine learning algorithm to classify plant diseases from cell phone images. This project was not only challenging, since I was in charge of the entire pipeline from going out in the field to collect training data, over image processing and feature generation to training and tuning the actual classifier, it is also extremely useful in practice. It helps farmers to identify diseases in crops early and without having to consult an expert. It literally saves money and helps making agriculture more sustainable!

Talk to me about...  
DATA SCIENCE



Talk to me about...

