#### Athena Tabakhi CSE Lecturer

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.

# WEBELONG! CS@WASHU Talk to me about... ✓ WiCS ✓ Grace Hopper Celebration Doing a PhD

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#### Kathryn Sarullo CSE PhD Student

When starting undergrad, I was originally just a math major and I was looking for a good minor to help round out my resume for jobs evenutually. That's how I first came across CS, I took a class and immediately loved the feeling of accomplishment I had when I figured out a bug or when I finished a really hard project. I was always excited for the next cool thing I could create.

The coolest project I've worked on is creating an algorithm to mine for important subgraphs in chemical biology. Molecules can be represented as graphs and we can use really cool deep learning techniques on graphs! My favorite part is how we work with an active wet lab to test our models to see how accurate they are in the real world. Seeing my work in use makes these projects that much cooler.



#### Tarra O'Malley Masters Student

Freshman fall I enrolled in 131 just because I had friends taking it. I was very intimidated by the pace of the class at first since I had no coding background but soon grew to enjoy it.

I wrote a stock volatility model with Twitter data as an input variable. I showed that frequency and sentiment of tweets about some companies are correlated with a stock's near term realized volatility. This was a very significant finding in a field I enjoy. The problem was extra tricky because I was working with time series data. I enjoyed it because time series modeling, specifically SARIMAX models, are still being researched so I had to read recent papers to find out the best way to go about the machine learning procedure. I overcame many challenges related to data availabilty, causality interpretations vs correlation, and more.



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#### Junyi Yao Junior/Senior

I took introduction to CS (131) at WashU in my first year. From that class, I learnt how to program and code for the first time, and it was a very inspiring class with many fun projects. I'm also always interested in technology and its applications in many different areas. I'd love to learn more about how the internet and computer will change our future. That's why I started to pursue my major in Math+CS.

I did a technology internship in the last summer. It was my first internship and also my first exposure to industry level projects. I was in the infrastructure team and helped build a pipeline for improving efficiency of software delivery. It was very different from any class projects I've done in the past. The industrial requirements were also very different from school criteria. But I enjoyed most part of my work. Especially the culture in the tech industry is usually very chill and relaxed. Talk to me about...✓ TAing for a CS class



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#### Cynthia Zhou Ma CSE Lecturer

After graduating Swarthmore College in 2014 with a double major in biology and computer science, I the Brent Lab at Washington University in St. Louis. My research focus was the analysis of gene expression data to model gene regulation, specifically the role of transcription factors (TFs) and the inference of TF activity in different conditions. After receiving her PhD, I joined the teaching faculty of the McKelvey School of Engineering in Fall 2022.

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Talk to me about...

- ✓ REU/research
- ✓ Data mining
- A
- Doing a PhD



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#### Julia Zeng junior/senior

I began wanting to study CS when I started college. I noticed how software is used for so many things in the world, and I thought it would be cool to learn how that technology works and be able to create it myself.

The coolest experience was my software engineering internship last summer. That was the first time making software for real-world applications. It was a really cool experience to see my work being pushed to production and used by thousands of clients. At my internship, I used frameworks that I had not used before, which was a challenge that many interns face. However, I made sure to ask for help often and maintain communication with my teammates. Over time, I gained a working understanding of the technologies I was using.



#### Neha Singh CSE Lecturer

I joined the faculty in the Department of Computer Science & Engineering in Fall 2021. I completed my PhD in 2022 in the Mobile Pervasive & Sensor Computing lab at the University of Maryland, Baltimore County.

My research domain is artificial intelligence and is applying machine learning and natural language processing methods to solve the interdisciplinary problems of disaster management to assist the emergency managers in rescue and aid operations. The goal of my work with the multi-modal data sources is to build efficient predictive models which can extract crucial relevant insights and information regarding the disaster in real-time. Talk to me about... ✓ Data science

✓ AI✓ Doing a PhD



# Steve Cole

CSE Senior Lecturer CSE Director of Diversity, Equity, and Inclusion Initiatives

I didn't know a thing about CS until college; I took one class that was required for my Math major and eventually got hooked. Took it one step at a time (minor, major, M.S., Ph.D.) b/c at each step,. I was unsure whether I wanted to continue.

I'd say my experience earning my M.S. at the U of California-Riverside. I was coming off a year of volunteer work in Central. America after college, and I'd decided during that year that I wanted to continue learning more CS. During my time at UCR, I was living in a new place, learning what I thought was supercool stuff, feeling like the whole world was ahead of me. Young and idealistic, but very exciting. :-) I faced the challenge of feeling (and probably actually being) rather unprepared for the coursework compared to my peers, since I'd come from a small liberal-arts UG institution without nearly the CS technical preparation as most programs. I had to study pretty hard my first year to catch up; what helped was that I was a full-time student so I could devote myself entirely to my studies, and that I had friends in my classes -- we formed a good cohort, would study together often and do group projects together. Talk to me about...

- ✓ REU/research
- ✓ Security
- ✓ Algorithms
- ✓ TAing for a CS class
- ✓ Doing a PhD



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#### Deepthi Kailash <sup>junior/senior</sup>

When I came to college, I was most interested in math. However, it wasn't until I started taking an intro CS class that I became interested in the ways that CS can build off of other fields for infinite applications. I have taken classes involved with computational biology, image processing, and data science, and I'm excited in implementing what I've learned in other fields. I chose CS for the ability to expand of knowledge.

Computing is the way the world is moving. It empowers us to accomplish an infinite amount of possibilities. If our women+ students can put their minds into it, it'll just exponentially increase new ideas we can prove and uncover.



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## WEBELONG! CS@WASHU Nicole Costales junior/senior I started programming my first year at Talk to me about... WashU when I took CSE 131. I enjoyed the ✓ GirlsWhoCode problem-solving aspect of it and loved how ✓ Grace Hopper computer science could be applied to almost any field. My favorite CS experience was completing a software engineering internship this summer. It was really rewarding to apply my knowledge from coursework to solve real world problems.

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Celebration

class

TAing for a CS

Marion Neumann CSE Teaching Professor Director of the Data Science Program

I didn't really get into computing until my master's project, where I used machine learning to make traffic predictions. As a math major I was so excited about doing something 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 managed 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!

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Talk to me about...

- ✓ Data science
- ✓ Grace Hopper Celebration
- Machine Learning
- ✓ TAing

✓ Doing a PhD



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# WEBELONG! CS@WASHU Dhoha Abid CSE PhD Student I had a lot of influence from my father who Talk to me about... has a CS major. $\checkmark$ TAing for a CS I believe that everybody should pursue the career that class s/he want. I understand that, in the USA, fewer females Doing a PhD pursue computing which might seem unfamiliar/ unusual to some females, but in other countries like mine (Tunisia), this is not the case. Females and males equally pursue computing. Females should pursue computing if they want to, they should not feel intimated or think it is a male job. dabid@wustl.edu

Hila Ben Abraham Senior Research Engineer, RTI

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.

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Talk to me about...

- ✓ Industry
- ✓ Research
- Doing a PhD
- ✓ Cyber security

