CAMILLE ZAUG

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RELEVANT WORK EXPERIENCE

Analytics Software DevOps Data Scientist

Ford Motor Company

2021-present

(Currently onboarding as of 10/2021-check back later for details!)

Computer Science Instructor

Girls Who Code

Summer 2020, 2021

- Took action to close the STEM gender gap by welcoming over 360 high school girls into the computer science community, introducing them to the world of web development (JavaScript, CSS, HTML)
- Led a team of 2-4 teaching assistants to create an inclusive virtual class culture in order to support active student learning of computer science concepts through risk-taking, exploration, and partnership
- Emphasized how computer science can be a tool for positive change by mentoring students working on their capstone project: websites built to educate the public about causes meaningful to students

Software Engineering and Development Intern

Creative Creek

Summer 2020

- Worked closely with mentor to create a more engaging and intuitive accounting application than existing products that implements machine learning to provide more relevant financial insights to users
- Built foundations of the application by designing intelligent import tools and report generators that allow users to effortlessly connect their bank statements and easily understand their financial habits
- Developed in Python, C++, and SQL, making decisions to utilize existing libraries as much as possible and participating in database design by revising the schema to incorporate more relevant fields

Mathematics Research Assistant

Seattle University

2018-2020

- Modeled ocean swell, applying nonlinear surface wave models previously only studied in controlled wave tanks to the chaos of the Pacific Ocean to determine their efficacy in a real-world environment
- Designed pipeline to process wave data in Python, spearheaded the use of Azure cloud computing to efficiently perform numerical simulations, and developed metrics to quantify model error
- Received multiple travel awards to present findings at professional conferences, received a best poster award at a SIAM sectional meeting, gave an invited talk at the University of Washington, and firstauthored paper for Studies in Applied Mathematics

EDUCATION

M.S. Applied Mathematics

University of Washington

Fall 2020 - Spring 2021

GPA: 3.93

SIAM Club Member

B.S. Mathematics, B.A. Physics, Chinese Minor

Seattle University

Fall 2016 - Spring 2020

Summa cum laude

GPA: 4.0

Alpha Sigma Nu | Sigma Pi Sigma

SELECT PROJECTS

Swell Prediction with Deep Learning

Predicted local ocean swell events using RNNs and a Seg2Seg model in Pytorch (inspired by surfing in Santa Cruz)

Portfolio Website

Designed, created, and deployed a personal interactive resume using Vue.is. HTML, CSS, and JavaScript (motivated by my work with Girls Who Code)

Timbre Synthesizer

Built a program and GUI in Python to allow users to create and experiment with musical tones (inspired by my favorite algorithm, the Fast Fourier Transform)

LANGUAGES

Programming Languages

Proficient

Python C++ **MATLAB**

Experienced

SQL **JavaScript HTML** CSS **CUDA** Julia

Spoken Languages

Mandarin Chinese Spanish

AWARDS



President's Award, 2020

Elected by department chairs and university president to receive highest academic award at Seattle University (given to one graduating senior)



Best Poster Award, 2019

Society of Industrial and Applied Mathematicians Pacific Northwest Sectional Meeting, October



Bannan Scholar, 2018-2020

Scholarship awarded for my academic achievement in conjunction with my community service in STEM education at Bailey Gatzert Elementary School

PUBLICATIONS

C. R. Zaug and J. D. Carter, "Dissipative models of swell propagation across the Pacific," Studies in Applied Mathematics (Accepted), 2021.

N. Pelle, L. Ehinger, C. R. Zaug, and W. J. Kim. "An autocollimator with submicroradian sensitivity," American Journal of Physics, 2020.