

Gwen Bradforth

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EDUCATION

University of Southern California | Bachelor of Science in Computer Science Expected May 2024

- Relevant courses: Calculus I-III, Data Structures and Object Oriented Design, Linear Algebra, Embedded Systems, iOS App Development, Algorithms and Theory of Computing, Software Development/Engineering, Computer Security, Natural Language Processing, Artificial Intelligence, InterNetworking, Operating Systems

SKILLS

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- Python, C/C++, Java, Swift, HTML/CSS, SQL, Assembly, GitHub, Calculus, Machine Learning, Artificial Intelligence

WORK & RESEARCH EXPERIENCE

CURVE Fellowship May 2023 - Present
University of Southern California Los Angeles, CA

- Collaborating with a Ph.D. student for 7+ hours a week to conduct a research study with 30+ dementia patients
- Developing Python software involving the Tobii Lab SDK to perform eye-tracking data collection, deployed in study
- Performing data analysis and multimodal training of machine learning models with eye-tracker and audio data, research paper in review

Computer Science and Math Instructor June 2023 - December 2023
Juni Learning Remote

- Teaching one-on-one classes with students aged 6-16, giving instruction on Java, Python, and Algebra
- Meeting with each of 7 students for an hour a week as primary instructor

Research Student June 2022 - August 2022
Cancer Research UK Cambridge, UK

- Collaborated daily with graduate students in lab of Professor Sarah Bohndiek
- Developed front end web tool to execute imaging analysis using Django and Flask, presented project

Bridge Undergraduate Science Program (BUGS) June - August 2019
University of Southern California Los Angeles, CA

- Collaborated with 2 graduate students in lab of Professor Scott Fraser as a BUGSjr, with daily work on microscopy, computer science, and neuroscience concepts
- Created machine learning algorithm to identify key regions in zebrafish brains, using Scikit-learn and Tensorflow
- Demonstrated project to 40+ USC students and staff in final presentation

CONFERENCE PAPERS

[1] A Multimodal Benchmark of Speech, Gaze, and Sketches for Detecting Alzheimer's disease and related dementias
Leticia Pinto-Alva, Leslie Moreno, *Gwen Bradforth*, Riley Ashford, Cecily Chung, Maja Mataric, Jesse Thomason (In Review)
SocNLP 2023

PROJECTS

OutPlay | AthenaHacks 2022

- Developed an iOS app of an integrated capture flag game, allowing for active play and safety
- Won Best Use of C/C++, Rust, Swift or Assembly, sponsored by Raytheon

HONORS AND AWARDS

NCWIT Award for Aspirations in Computing: Los Angeles Affiliate | National Center for Women & Information Technology February 2020

- Award granted to female and non-binary students for their aptitude, achievements, and experiences in computing.