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Annie Robison

EDUCATION

MS in Computer Science (in progress), UC Davis, 2020-Present, 4.0 GPA
Research Interests: High-Performance Computing and Computer Architecture

Advanced Program in Software Engineering, UC Berkeley Extension, 2019, 4.0 GPA

BA in Economics-Mathematics, Whitman College, summa cum laude, 2015, 3.94 GPA

INDUSTRY EXPERIENCE

Programmer Analyst PinPoint Research
Emeryville, CA | Nov 2016 - Present
- Oversees and develops technology for automatic speech recognition (ASR) products. This includes technology to audit the accuracy of ASR models, analyze ASR data to come up with frequent word confusions, and perform in-place word substitutions, all utilizing Python and PostgreSQL.
- Builds data migration pipelines to/from clients and vendors. These pipelines have included SOAP, REST, and GraphQL APIs, built using PHP and Python, as well as BASH and Python scripts for data processing.
- Uses PHP to develop data-intensive web reports to track study metrics.

Data Scientist Plexuss, Inc.
Walnut Creek, CA | Feb 2016 - Nov 2016
- Developed machine learning algorithms to match prospective students with their best-fit colleges. Utilized R and MySQL to build algorithms and PHP to incorporate them into the site's back end.
- Developed onboarding process for new users with PHP and MySQL. Optimized queries and logic to improve site speed and user experience.
- Automated various tasks for sales team including web scraping and sending client emails.

Analyst BetterHelp
Sunnyvale, CA | July 2015 - Feb 2016
- Designed and developed landing pages with A/B tests for funnel optimization.
- Gathered insights from user data with R and MySQL to improve acquisition and retention efforts.

TEACHING EXPERIENCE

Teaching Assistant - ECS 189L Gameplay Programming UC Davis Department of Computer Science, Spring 2022

Teaching Assistant - BAX 452 Machine Learning UC Davis Graduate School of Management, Winter 2022

Associate Instructor - DES 117 Interactive Media I UC Davis Department of Design, Fall 2021

Teaching Assistant - ECS 050 Computer Organization & Machine-Dependent

Programming UC Davis Department of Computer Science, Summer 2021

Teaching Assistant - DES 157A Interactive Media II UC Davis Department of Design, Spring 2021

RESEARCH EXPERIENCE

- **Gunrock Essentials**. As a member of John Owens' research group, develops graph applications built with C++ and CUDA, using the Gunrock Essentials framework. Plans to conduct performance analysis of new and existing applications using Nsight Systems and nvBench. (2022-Present)

- **Towards Efficient Hardware-Assisted Address Sanitization**; Chuck Rozhon, Maryam Babaie, and **Annie Robison**; ECS 201C Advanced Computer Architecture; UC Davis. Explored ARM's hardware-assisted address sanitization through gem5 simulations. Used gem5 statistics to pinpoint sources of overhead. Detailed plans for hardware and software solutions to target those sources. (2021)

- **Meta Sequence-to-Sequence Learning for Low-Resource Neural Machine Translation**; Chitrabhanu Gupta, **Annie Robison**, Julian Angeles, and Maryam Zolfaghar; ECS 289G Natural Language Processing; UC Davis. Applied meta sequence-to-sequence learning to neural machine translation by extending the original PyTorch implementation. (2020)

TECHNICAL SKILLS

ADVANCED	PROFICIENT	LEARNING
C / C++	x86	CUDA
Python	BASH	Unity
MySQL	gem5	C#
PostgreSQL		
PHP		
JS / HTML / CSS		