

# Alexander Brown

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## EDUCATION

### University of California, Irvine

Irvine, CA

B.S. Computer Science

Intelligent Systems Specialization

September 2022 - Expected June 2025

- Cumulative GPA: 3.85/4.0

## PROJECTS & ACTIVITIES

### AI BWC Footage Tagging and Purging

Signal Hill, CA

Capstone Project

January 2025 - Current

- Collaborated with the Signal Hill Police Department to develop AI-driven software for identifying and categorizing police body-worn camera footage eligible for purging
- Implemented PyTorch and Tensorflow ensemble ML and LLM models to classify 16 terabytes of untagged footage, incorporating time-sequential audio and visual data

### Learning Assistant

Irvine, CA

Introduction to Python

Sept 2024 - Current

- Mentored students in UCI's Introduction to Programming course, enhancing understanding of Python and problem-solving skills
- Assisted students in lectures, forums, and support hours to strengthen their programming skills

## RESEARCH

### Machine Learning Research Assistant

Cal IT2, CA

California Institute of Telecommunications & Information Technology

Sept 2024 - Current

- Collaborated with a postdoctoral researcher in thermal energy systems
- Developed predictive supervised machine learning models using PyTorch that leverage time series data to simulate thermal energy storage system behavior, significantly reducing computational overhead compared to traditional simulation methods

## WORK EXPERIENCE

### Full-Stack Web Developer

University of California, Irvine

Student Affairs, Information Technology

March 2023 - Current

- Developed and optimized full-stack applications (Laravel, PHP, HTML, JavaScript, CSS) to boost system efficiency and user experience while streamlining backend testing via scripting and automated end-to-end tests
- Enhanced commencement websites with real-time data broadcasting, streamlining registration for 9,000+ graduates and volunteers per year

## RELEVANT COURSEWORK

Databases, Systems, Machine Learning, Artificial Intelligence, Data Structures, Algorithm Analysis, Information Retrieval, AI in Education, Probability in CS, Statistics, Graph Algorithms

## SKILLS

Programming & Tools: Python, SQL, Java, C++, Git, Bash, Docker, AWS, Jira

Data & Machine Learning: PyTorch, CUDA, TensorFlow, Scikit-learn, MySQL, pandas, numpy

Automation & Optimization: Scripting, Software Testing, CI/CD