# 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*
- Engineered full-stack applications using Laravel, PHP, JavaScript, and CSS, while implementing Cypress for E2E testing and creating PHP scripts for data migration
- Developed multiple campus applications including ceremony management systems handling registration for 9,000+ graduates and volunteers annually

## 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