**Eric Du**

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**EDUCATION**

**University of California, Davis Davis, CA**

*B.S. Computer Science | GPA: 3.7/4.0 Sep 2020 – Dec 2023*

* Coursework: Deep Learning, Design Patterns, Computer Networks, Computer Vision, Operating Systems, Databases, System Design

**EXPERIENCE**

**UCDavis Plant Sciences |** Linux, Apache, PHP, Python **Davis, CA**

*Web Developer | SWE Research Assistant Apr 2023 – Present*

* Modernized a PHP, Apache, and Python model that predicts possible planting dates of different species of rice using temperature and weather data from 12 active weather stations.
* Converted to a Vue.js component for modularity and universal compatibility.
* Maintained websites on SiteFarm a Drupal based site manager using CSS and Vue.js.
* Created Vue components to store 2000+ files onto SQLite database and search through a faculty directory.

**AggieWorks | RoomU |** React Native, Supabase, Next.js, Node.js **Davis, CA**

*Software Engineer Sep 2023 – Present*

* Increased image cache loading speed by **428%** and image download speed by **200%**.
* Connected UC Davis SSO login for security, bringing in 300+ users in first 2 weeks of BETA launch.
* Reformatted 10,000+ lines of code by creating generic components for core visual features and database filters.
* Added **16 analytics metrics** and configured smart filters based on user preferences and activity.

**NEA CLC |** React, Firebase, Python, Java, C++ **Alameda, CA**

*Teacher’s Assistant Sep 2018 – Jun 2020*

*Software Engineer Sep 2023 – Present*

* Managed a React/Firebase class website for code submission and auto-grading with comprehensive test cases.
* Facilitated discussions and tutored a class of 40 students on Python, Java, and C++.
* Graded and planned 2 major projects and created worksheets on Object Oriented Programming.

**PROJECTS**

**PyTorch Classifications for Deep Learning** | [[github](https://github.com/EricDuuu/Deep-Learning-Projects)] **2023**

* Extensively experimented with diverse machine learning models (MLP, CNN, RNN, GNN) for effective classification of various datasets.
* Designed a joke generator with **55%** accuracy for discriminator using a bidirectional LSTM model.
* Improved model accuracy through robust data preprocessing and normalization.
* Scored top test accuracies of entire class for CNN, LSTM, and MLP of 87%, 95%, and 80% respectively.

**Hack Davis 2022 [[github](github.com/Prive082/Project_Empath)] [[devpost](devpost.com/software/project-empath)] |** Arduino, C, Python, x86, Google Cloud API **2023**

* Implemented an embedded system using a webcam, Arduino, and a taser for a novel Ring camera-esque system.
* Integrated Google Cloud facial recognition API to extract intentions from facial features of detected intruders.
* Connected an RFID reader to a webcam and taser to shock wrongfully attempted key fobs and records suspects.

**SKILLS**

**Programming Languages:** C++, C, Python, JavaScript, Java, SQL, HTML/CSS, Swift

**Technologies:** React, React Native, Node, Expo, PyTorch, TensorFlow, Docker, Supabase, Firebase

**Spoken Languages:** Vietnamese, English, Spanish

**Awards:** College of Letters and Sciences Dean’s List 2021