Ecson Hsu

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SUMMARY

Experienced software engineer excels at tackling complex problems and project management with recognizable strengths on innovation and communication. Specializing in full-stack and web development.

EDUCATION

University of California, Irvine - Donald Bren School of Computer Sciences

- **B.S Computer Science,** GPA 3.6 *Expected: March 2024*
- Member of AI@UCI and Cybersecurity@UCI

SKILLS

Languages/Tools - Python | C++ | C | HTML | CSS | Git | Linux | SQL | Java | Javascript | AWS | Tableau | Julia
Coursework - Software Architecture | Embedded Software | Cloud Computation | API | Web Design

WORK EXPERIENCE

Machine Learning Research Assistance, *University of California, Irvine* *Jun 2023 - Aug 2023*

- Constructed scripts and tuned a multi-classifier model with 50+ parameters for a wearable health device to address domain shift challenges.
- Processed an extensive dataset comprising over 10 million data, and employed advanced data transformation, feature selection, and dimensionality reduction techniques.
- Redesigned the convolutional network, incorporating simple modifications, resulting in an outstanding average accuracy of 96% with the research team.

Software Development Engineering Intern*, BucketAnalysis Inc.* *Jun 2021 - Aug 2021*

- Created an optical character recognition program utilizing Python's OpenCV and PyTorch to analyze basketball players' shooting accuracy following agile development methodology.
- Cooperated with team members to conduct rigorous data validation to ensure reliable performance in various court conditions, achieving a remarkable 6% improvement in model accuracy.

Web Developer and Uniform Designer, *Epoch Inc.* *Jun 2022 - Sep 2022*

- Revamped the main page of the company's uniform website using HTML and CSS, resulting in a highly responsive and visually engaging user interface.
- Implemented clear navigation that significantly enhances user experience and drives a notable 10%-15% increase in web page stay time.
- Addressed"Expectation-Reality Gap" from uniform production challenges by collaborating with the team to devise solutions, fostering customer satisfaction and loyalty.

RELATED PROJECTS

- **Health Device Program:** Optimized and trained *Python*-based machine learning models and data structuring functions to analyze participant activities from a wearable health device.
- **Interactive Learning Platform**: Designed user interface and interactive features on a website for learning Geometry with a project team using *JavaScript* and *CSS* under scrum development.
- **Web Crawler:** Built a Python-based web crawler that extracted and indexed data for information retrieval from over 4000 websites.
- **Computer Vision Classification Method**: Built multiple classifiers with *Python* and investigated the model accuracy with CIFAR-10 for visual application based on 10,000 image dataset.