LUKAS HU

EDUCATION

• University of California, Irvine | B.S. in Computer Science, Intelligent Systems Specialization | 09.2022 – 06.2025

EXPERIENCE

Computer Science Learning Assistant | UCI Donald Bren School of Information and Computer Science | 09.2023 – 06.2025

- Led review sessions to demystify complex topics, enhancing engagement and comprehension for 900+ students.
- Provided support for introductory and intermediate **C++** and **Python** courses, reinforcing core concepts such as **object-oriented programming**, **data structures**, and **algorithms**, resulting in higher exam scores for undergraduate students.
- Partnered with instructors to refine course materials and offer constructive feedback, leading to improved student performance.

Cybersecurity Analyst / Intern | Midnight Ink | 04.2024 – 04.2025

- Identified and remediated over 100 security vulnerabilities, identifying compliance gaps in alignment with NIST standards that resulted in a significant risk reduction to the business.
- Supported remediation efforts to secure the development environment, ensuring robust protection before production implementation.

Software Engineering Intern | *World Wide Technology (WWT)* | 06.2024 – 09.2024

- Reworked Node.js REST APIs to streamline data publishing, reducing message latency and efficiently handling 500+ messages per minute via RabbitMQ.
- Optimized **SQL** queries to accelerate search times for sales order attributes across hardware and SaaS transactions, improving ERP data retrieval.
- Developed Node.js-based Jenkins CI/CD scripts to automate repository deployments, improving release consistency and reducing manual effort.

Machine Learning Research Assistant | UCI Institute of Transportation Studies | 10.2023 – 06.2024

- Built machine learning models using **Scikit-Learn** and **XGBoost** to predict smoothed vehicle trajectory data, improving both accuracy and reliability.
- Cleaned and organized over 140,000 rows of raw vehicle trajectory data using NumPy and Pandas to improve data quality and enable accurate model training.

PROJECTS

Chord Progression Storage App | *ChordStore* | 2023

- Created a web application with a **React.is** frontend, enabling music producers to build custom chord progressions.
- Developed a **Node.js** API backend to facilitate the creation and retrieval of chord progression data.

Addiction Recovery App | Escape-Vape | 2020 – 2021

- Designed and implemented 12 personalized online therapies and activities, catering to individual user needs for enhanced engagement, well-being, and effectiveness.
- Developed a full-stack **Node.js** web application utilizing an **Express.js** backend designed to support 2,000+ users in overcoming nicotine addiction, providing an intuitive and effective platform for behavioral change.

CERTIFICATIONS & SKILLS SUMMARY

- Programming Languages and Markup: HTML/CSS, Python, JavaScript, TypeScript, C/C++, R, SQL, Java, MATLAB
- Data & Cloud Technologies: Excel, Tableau, MongoDB, MySQL, NoSQL, PostgreSQL, Google Cloud, AWS
- Frameworks and Tools: React.js, Vue.js, Node.js, REST APIs, JUnit, Git, Jenkins, Firebase, JSON
- Operating Systems and Environments: Linux, Microsoft Windows, MacOS
- Machine/Deep Learning: NumPy, Pandas, PyTorch, Matplotlib, Scikit-Learn, CNN, K-means clustering, NLP, TensorFlow
- Certifications: ISC2 Cybersecurity Certification, Google Data Analytics
- Awards: UCLA AI Responsibility Summit Most Innovative Project, 2nd place Congressional IT Application Challenge