Matthew Nhat Phan

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SUMMARY

As an enthusiastic and ambitious student pursuing Computer Science undergraduate, I've gained a strong foundation in the software development lifecycle and data engineering through more than 3 years of academic projects and collaborative team experiences. I am passionate about learning best practices in coding, producing high-quality, clean code that is easy to maintain and scale. Eager to leverage my skills, I'm actively seeking junior-level software engineering or internship positions.

EDUCATION

University of California, Irvine **Expected Graduation Date:** June 2025

Major in Computer Science (Intelligent Systems), Minor in Financial Management, CGPA: 3.7/4.0

- **Dean's Honor List:** 2021 - 2024
- **Relevant Coursework:** Machine Learning, Statistics, Database Management, Information Retrieval, Web Applications, Data Structure and Algorithms, Software Testing and Quality Assurance, Discrete Mathematics, Linear Algebra

TECHNICAL SKILLS

Languages: Python (advanced), C++ (advanced), Java (advanced), MySQL (advanced), HTML/CSS/JS (advanced), MIPS 32 (proficient), React Native (proficient), Angular (proficient)
Frameworks: React Native, Flask, jQuery, Apache Tomcat
Developer Tools: Git, VS Code, Eclipse, Jupyter, Figma, AWS EC Connect and Lambda, Docker, Kubernetes

PROJECTS

Fablix Web March 2024 - June 2024

- Developed a full-stack web application using Apache Tomcat, Java Servlets, JSP, MySQL, and AWS, with secure user authentication, session management, and dynamic content generation.
- Implemented a responsive front-end interface featuring movie searching with fuzzy matching, sorting, and a shopping cart system.
- Enhanced application performance and scalability through JDBC Connection Pooling, MySQL Master-Slave replication, load balancing, Kubernetes, and Docker.

Diabetes 130-US Hospitals March 2024 - June 2024

- Modeled and extensively tuned machine learning classifiers for optimal performance, distinguishing no hospital readmission, readmission within 30 days, and readmission after 30 days of diabetic patients.
- Achieved the highest accuracy of 70% using Random Forest.

UCI ICS Search February 2024 - March 2024

- Designed a Python-based search engine that processes diverse queries over a custom inverted index of 70,000+ web pages.
- Implemented multi-threading to improve information scraping and retrieving performance, leading to a reduction of 20% in query response time.

Checker AIs September 2023 - December 2023

- Engineered prominent Artificial Intelligence algorithms on a Checker bot to participate in a class tournament.
- Improved the bot's win rate by 60% by implementing Minimax Search with ordering optimization and alpha-beta pruning with Monte-Carlo Tree Search after 10 moves.

WORK EXPERIENCE

ML Researcher - Part-time July 2024 - Present

- Studied data from NASA's PACE satellite to track marine and land animals migration.
- Applied Python's Pipelines and cross-validations to prevent data leakage and enhance training quality.
- Engineered ML models, such as XGBoost and Random Forest, to predict environmental impacts.

Lab Tutor - Part-time **Information & Computer Science, UCI** March 2023 - June 2023

- Tutored 6 hours weekly for Programming In C++ class.
- Assisted students in dissecting challenging topics through personalized guidance.
- Analyzed and discussed teaching strategies with professors to bolster learning qualities for students.