Randy Pham

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Education

University of California, Riverside June 2025
Bachelors of Science in Computer Science Riverside, CA

Relevant Courses: Data Analysis, Databases, Software Testing, Operating Systems, Machine Learning, Data Structures and Algorithms, Software Construction, Information Retrieval

Technical Skills

Languages/Scripting: Python, C++, Golang, Bash, Powershell, HTML, CSS, JavaScript, Java
Tools/Frameworks: Git, CMake, MySQL, SQL (PostgreSQL), Spark, VS Code, GTest, Slack, Windows OS, REST APIs, JSON
Libraries: Pandas, NumPy, Pytorch, Matplotlib, SciKit
Development Practices: Agile (Scrum), CI/CD, Version Control, Code Review, Unit Testing, Schema Design, Software Development Life Cycle

Projects

MacroBot | Golang, REST APIs, DiscordGo, JSON September 2025 – Present

- Engineered backend Golang Discord bot with DiscordGo, integrating Nutritionix API to deliver real time nutrition data for 500K+ whole foods and restaurant items through Discord user facing chat interface
- Designed and implemented API pipelines, including JSON parsing into Go structs, environment based authentication, and error handling, achieving <200ms average query latency reducing failed requests
- Architected scalable backend pipeline for RESTful requests with secure environment based secrets and structured JSON responses, supporting 15+ concurrent nutrition queries

Feature Selection Optimizer | Python, Chrono February 2025 – March 2025

- Built Forward Selection and Backward Elimination algorithms in Python, deploying Euclidean Distance and Leave-One-Out cross validation to select optimal feature subsets across small datasets (6 features, 500 instances) and large datasets (40 features, 1000 instances)
- Achieved up to 96.2% classification accuracy on 6 feature datasets and 76.6% on 40 feature datasets utilizing iterative subset evaluation and accuracy tracking
- Produced solver walkthrough and runtime analysis reports, weighing tradeoffs in time complexity versus accuracy

Movie Recommender System | C++, Google Test, CMake September 2023 – December 2023

- Designed backend system to integrate 100+ IMDb movie records from CSV into structured storage, supporting efficient query handling and powering a CLI with live-updating tailored recommendations and trending picks
- Configured CMake to manage builds and automate test execution, enabling seamless integration with Google Test and ensuring reproducible builds
- Collaborated in a Scrum Agile environment, breaking development into biweekly sprints, weekly stand ups, and prioritizing backlog items to ensure timely delivery of a functional system
- Constructed CI/CD pipeline via GitHub Actions to automate builds and run Google Test on every commit, ensuring 100% of new code passed unit tests before merging

Experience

Cutie Hackathon | C++, Figma November 2023
Software Developer Riverside, CA

- Built a C++ program to parse weather CSV data files and calculate weekly lawn watering schedules by analyzing rainfall patterns, processing 100+ daily records, dynamically adjusting terminal output
- Led collaboration by on boarding team members to GitHub, managing team version control avoiding costly merge conflicts and chains of blocked stories
- Synthesized diverse project ideas into cohesive technical scope, ensuring alignment on feature prioritization and responsibilities across frontend and backend roles