Mahyar Vahabi

ENTRY LEVEL SOFTWARE ENGINEER

Contact

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San Jose, California

Portfolio

Mvahabi

Software Skills

- Python (5 yrs.)
- C/C++ (4 yrs.)
- HTML/CSS (2 yrs.)
- JavaScript (1 year)
- SQL/Postgres (1 year)

Technical Skills

- AWS
- Linux
- Git
- OOP
- Rest API
- Full-stack
- Data structures
- Network programming

Language

- English - Native
- Persian - Native
- Spanish - Beginner

Education

UNIVERSITY OF CALIFORNIA SANTA CRUZ

- **M.S., Computer Science** (Expected June 2025)
- **B.S., Computer Science** (June 2024)

GPA: 3.72

Related Coursework: Data Structures and Algorithms - Object Oriented Programming Computer Systems - Machine Learning - Databases - Computer Networking - Computer Graphics

Work Experience

COMPUTER SCIENCE TUTOR — **JANUARY 2023 - JUNE 2024**

Baskin School of Engineering @ UCSC — **Santa Cruz**

- Lectured over 1,000 students in Data Structures & Algorithms, enhancing their problem-solving skills
- Designed and provided pseudocode examples in C/C++ to simplify complex concepts
- Evaluated and provided constructive feedback on student work for effective programming practices
- Adapted teaching methods to unique learning styles, resulting in improved academic performance
- Mentored 30+ students, helping them secure internships and research opportunities

SOFTWARE ENGINEER - AI TRAINER — **JUNE 2023 - SEPTEMBER 2023**

Scale AI — **San Fransisco**

- Enhanced Google's Gemini code generation efficiency by 80% by implementing extensive code samples
- Trained the chatbot to respond accurately to coding-related prompts, improving user satisfaction
- Provided code samples in multiple languages to address diverse user prompts effectively
- Led multiple projects to enhance generative AI models, resulting in increased model accuracy
- Utilized full-stack expertise to resolve complex AI challenges, boosting model performance by 20%

Projects

Multi-Threaded HTTP Server | C, Python

- Developed a server using socket programming to handle network connections and HTTP requests
- Implemented semaphores for thread synchronization, reducing race conditions and increasing stability
- Achieved a 90% increase in server performance through rigorous testing and optimization
- Monitored server performance metrics, identifying and resolving bottlenecks to improve throughput
- Documented project development phases, facilitating future enhancements and maintenance

Bitcoin Crypto Price Prediction | Python

- Created an RNN model with LSTM layers to forecast Bitcoin price trends, improving prediction accuracy
- Attained 75% accuracy by perfecting the model and leveraging advanced machine-learning techniques
- Visualized model performance with detailed plots, aiding in the analysis and refinement of predictions
- Tested various hyperparameters to optimize model accuracy, achieving significant performance
- Integrated external data sources for enriched datasets, enhancing the model's predictive capabilities

Word Filtering Program inspired by "1984" by Geroge Orwell | C/C++

- Developed a text censorship program by integrating data structures to ensure maximum efficiency
- Leveraged Bloom Filters for efficient creation and membership testing of words
- Designed Hash Tables for storing translations from "oldspeak" to "newspeak"
- Integrated Binary Search Trees for efficient locating of words and their replacements