Mahyar Vahabi

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Education

University of California - Santa Cruz *Sep 2024 - Mar 2026*
Master's, Computer Science *GPA: 4*
- Coursework: Software Development, Software Engineering, Data Structures, Object-Oriented Programming, Databases, Computer Networking, Machine Learning, Artificial Intelligence, Cryptography

University of California - Santa Cruz *Sep 2020 - Jun 2024*
Bachelor's, Computer Science *GPA: 3.72*

Skills

Programming Languages: Python, C/C++, SQL, HTML/CSS, JavaScript, Java
Database & Dev. Tools: Wireshark, PostgreSQL, MySQL, REST APIs, Kubernetes, Docker, AWS, Bash, Linux, Git
Languages: Persian, English

Professional Experience

SpaceX **Sunnyvale, CA, USA**
Software Engineer Intern *Jun 2025 - Sep 2025*
- Built a Python/Flask pipeline to fetch multilingual survey responses hourly from Typeform into the internal SQL Server, eliminating the manual ETL process and delivering fresh insights
- Designed a normalized schema with SQLAlchemy to support 18 form variants without code changes
- Automated question mapping by index/type, flagging lowconfidence matches for review, and removing hardcoded logic
- Developed an LLMdriven ticket classifier that parses customer text and autoassigns issue categories, cutting manual triage by 90%
- Migrated intensive classification workloads from the UI into asynchronous Celery tasks, ensuring subsecond page loads

Baskin Engineering @ UCSC **Santa Cruz, CA, USA**
Computer Science Teaching Assistant *Jan 2023 - Jun 2025*
- Teaching Data Structures & Algorithms to 1,000+ students through hands-on complex C and C++ projects
- Managing a team of 15+ teaching staff by delegating tasks, mentoring, and optimizing grading workflows
- Conducting 80 hours of lab instructions to strengthen students' problem-solving, programming, and debugging skills using GDB debugger, through effective communication skills
- Deployed 10 automated testing Bash scripts in Linux operating systems to assess students' programming projects, covering functional, integrational, and memory leaks with Valgrind

Scale AI **San Francisco, CA, USA**
Reinforcement Learning Engineer *Jun 2023 - Sep 2023*
- Contributed to Scale AI's Remotasks team to enhance code generation through Reinforcement Learning from Human Feedback
- Enhanced Bard's chatbot code generation accuracy by refining prompts iteratively, applying SDLC, Agile, and CI/CD practices
- Engineered 100+ code completions across Python, JavaScript, SQL, and C++ to strengthen Bard's multi-language generative capabilities
- Evaluated and optimized prompt-response pairs to support continuous fine-tuning of the chatbot under the RLHF framework
- Performed in-depth analysis of 50+ code-related prompts to evaluate quality, coherence, and compliance with requirements

Projects

Networking Firewall & Routing Controller – Python | POX | Mininet *Oct 2023 - Dec 2023*
- Developed dynamic Python routing for ICMP, TCP, and UDP packets across VLANs using POX and OpenFlow
- Deployed a multi-switch, multi-subnet enterprise topology in Mininet with a remote POX controller
- Enforced inter-departmental firewall rules and flow-based routing by IP and transport protocol
- Programmatically controlled switch flow tables to manage packet forwarding rules and drop unauthorized traffic
- *Link to project*

Multi-Threaded Server – C | Socket programming | Data Structures | Semaphores | AWS | Nginx *Apr 2023 - Jun 2023*
- Programmed a multi-threaded C and Python-based server using socket programming for efficient end-to-end network management
- Achieved sub-20ms response times by utilizing semaphores for thread synchronization, handling 1000+ concurrent threads
- Constructed a queue-based architecture for cross-functional and sequential request processing and ensured atomicity
- Optimized system performance with AWS Elastic Load Balancing and Nginx Caching to reduce server load for recurring content
- *Link to project*

Bitcoin Price Prediction – Python | TensorFlow | PyTorch | Keras | Hypertuning *Sep 2022 - Dec 2022*
- Implemented a Bitcoin price prediction model by employing RNN architectures, yielding a 90% validation accuracy
- Executed LSTM and GRU layers to enhance forecasting accuracy and model performance over a longer period
- Utilized TensorFlow, PyTorch, and Keras for model training, fine-tuning hyperparameters, and evaluating prediction results
- *Link to project*