Hilal Morrar

510-520-9271 | hilalmorrar@gmail.com | U.S. Citizen
linkedin.com/in/hilal-morrar/ | github.com/hamorrar | hilalmorrar.com/

Experience

Software Engineer January 2025 – Present
LivingIn *Remote*
- Designing and Implementing various parts of the system from the ground up, including but not limited to UI, backend routes, database integration.
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Performance Engineer Intern May 2024 – August 2024
Cisco Systems - Duo Security *San Francisco, CA*
- Improved an internal performance testing tool by adding a feature using Python, AWS EC2, and MySQL to dynamically create simulated customers and generate realistic HTTP requests.
- Executed load testing suites with GitHub CI/CD pipelines to monitor and validate software release performance metrics using Datadog, Grafana, and Kibana dashboards for observability and incident response.
- Diagnosed and fixed deployment issues in Kubernetes clusters with Python and Docker YAML configurations, contributing to improved system reliability and reducing the risk of service degradation or on-call incidents.

Software Engineer Intern May 2023 – August 2023
Stealth Startup *Remote*
- Designed and implemented a REST API for a distributed, fault tolerant, consistent, and sharded key-value store using Go and Docker.
- Utilized Goroutines for concurrency when handling client and internal HTTP requests for system communication.
- Developed the resharding algorithm and internal API routes to support dynamic replica coordination and data rebalancing, and wrote Bash scripts to automate setup and teardown processes.

Machine Learning Engineer September 2020 – August 2021
Applied Machine Learning Lab *Santa Cruz, CA*
- Led the design and training efforts of various neural network model architectures to make predictions based on time-series data with PyTorch.
- Evaluated and tuned machine learning models using techniques like hyperparameter optimization, regularization, and pruning to achieve 95% accuracy.
- Improved data processing pipeline to distribute model training in a Kubernetes GPU cloud cluster to reduce training time by 50%.

Frontend Software Engineer July 2020 – September 2020
Resilient Renewable Efficient Energy Systems *Santa Cruz, CA*
- Worked in an Agile team environment to build a device to monitor energy data in a residential network.
- Developed the frontend of a research lab website using React and JavaScript for UI/UX design.
- Connected frontend and backend to send, receive, and process user input for device registration via JSON.

Education

University of Texas at Austin August 2023 – December 2024
Masters of Science, Computer Science *Austin, Texas*
- Coursework: Artificial Intelligence, Database Systems, Distributed Systems, Prediction in Computer Architecture

University of California, Santa Cruz September 2018 – June 2022
Bachelors of Science, Computer Science *Santa Cruz, CA*

Technical Skills

Languages: Assembly, C, C++, Go, HTML/CSS, Java, JavaScript, Python
Frameworks/Libraries: Agile, Gin, Keras, NumPy, PyTorch, React, TensorFlow, pandas, scikit-learn
Developer Tools: Atlassian, Docker, Git, Jira, Jupyter Notebooks, Kubernetes, Linux/Unix, MySQL, PostgreSQL, Slack, Terraform