



DANIEL KIM

danielgkim.info

 [linkedin.com/in/daniel-kim-05946624b/](https://www.linkedin.com/in/daniel-kim-05946624b/)  github.com/dgk453

Education

University of Texas at Austin

Bachelor of Science in Computer Engineering

May 2025

Austin, Texas

Relevant Coursework

- Algorithms
- Software Design
- Digital Logic Design
- Software Testing
- Data Science Laboratory
- Probability & Random Processes

Experience

Hewlett Packard Enterprise

Software (Systems) Engineer Intern

May 2023 – Present

Spring, Texas

- Chief designer at HPE responsible for designing monitoring systems and dashboards for the El Capitan project, a two exaflop supercomputer at the government-funded Lawrence Livermore National Laboratories, optimizing data processing and resource allocation, leading to a decreased acceptance period for HPE.
- Configured Grafana dashboards and data monitoring system for local HPE servers, utilizing time-series databases, Apache Kafka, RESTful APIs, and other technologies on HPE supercomputers.
- Developed an efficient Python Kafka Producer with multiprocessing to parse and transform logs and metrics from next-generation HPC hardware into JSON strings, enabling seamless integration with OpenSearch and increasing performance of systems by 60%
- Created a robust bash script to securely wipe memory from diverse hardware components on next-generation HPC hardware, enhancing data security and mitigating the risk of unauthorized data access to government research
- Designed Kibana dashboards to filter hardware specific errors and eliminate false alarms, optimizing the system diagnosis process and decreasing downtime by 30%.
- Utilized command-line interface (CLI) to perform system configurations for ELK stack and Grafana monitoring stack, ensuring optimal functionality and performance of HPE supercomputers.

Projects

MockHelp | *NextJs, Flask, AWS Lambda, ChatGPT APIs, MongoDB*

Jan 2024 - May 2024

- Designed the system architecture for MockHelp, a high-performance AI job interview tool capable of handling thousands of concurrent users.
- Managed team workflow through Jira by creating stories and tasks for team members, optimizing the development process of MockHelp.
- Designed the UI/UX of MockHelp using Figma, enhancing user experience and streamlining the front-end development process.
- Developed a modular code base for the app, enhancing testing efficiency by 40% by isolating each feature into separate, easily testable modules.

Sad Happy CNN Image Classifier | *TensorFlow, Numpy, Keras*

July 2024

- Designed a convolutional neural network that can classify an image of a person as being happy or sad with 99.7% accuracy.
- Created a data pipeline that preprocessed data by scaling images and partitioning it into training, validation, and test sets to avoid overfitting.
- Converted trained model into .h5 file for easy storage, sharing, and deployment, ensuring reproducibility and continuity in model development.

Yerraballi vs Valvano | *C, Assembly*

Jan - May 2022

- Developed a responsive two-player turn-based game utilizing C, Assembly, and hardware components, creating an engaging and interactive gaming experience.
- Designed custom sprites for characters and in-game objects using Aseprite, enhancing user experience.
- Created a physics engine integrated with interrupt service routines using an EK-TM4C123GXL Microcontroller, seamlessly integrating hardware and software for optimized performance.

Technical Skills

Languages: Python, Java, C, HTML/CSS, JavaScript, SQL, Dart, Go, Assembly, Bash

Developer Tools: Kafka, Supabase, AWS, Kibana, ChatGPT APIs, Prometheus, Grafana, OpenSearch, Docker, Kubernetes, XCode, Android Studio, Jira, Figma, Elasticsearch, Logstash

Technologies/Frameworks: React, NextJs, Linux, JUnit, Kafka, Flutter, Flask