Hercules KEUNG   Software Engineer

CONTACT

Phone: +852 6415 8999
Email: herculeskeung@gmail.com

GitHub: github.com/Hercules03
LinkedIn: linkedin.com/in/hercules-keung-704b28239

PROFESSIONAL EXPERIENCE

Software engineer with strong foundation in full-stack development, AI/ML, and system design. Experienced in developing mobile applications, implementing machine learning solutions, and leading technical projects. Demonstrated ability to write efficient, testable code and deliver innovative software solutions through hackathon projects and professional work.

SKILLS

Programming Languages: Python, C++, Swift
Technologies & Frameworks: SwiftUI, Machine Learning, Deep Learning, SQL, Git
Development Tools: Microsoft Office (VBA), Adobe Suite, Fusion 360
Software Development: SDLC, Test-Driven Development, Version Control
Languages: English (Fluent), Cantonese (Native), Mandarin (Fluent)

PROFESSIONAL EXPERIENCE

Robotics and AI Coach | May 2022 –Present | Part-time

Dr X Academy of Robotics and Coding Ltd. – Hong Kong

- Developed and implemented comprehensive software curriculum covering programming fundamentals, machine learning algorithms, and robotics applications
- Created testable, efficient code for robotics applications while maintaining documentation for future maintenance
- Designed and implemented hands-on programming exercises focusing on code quality and best practices

GTS Intern/Trainee | Jul 2022 – Sept 2022 | Full-time

PricewaterhouseCoopers – Hong Kong

- Implemented technical solutions for hardware deployment and system integration
- Developed and maintained ticketing system workflows for efficient issue resolution
- Executed data migration procedures ensuring data integrity and system compatibility

PROJECTS

Flying Car Design with Generative AI

- Designed and implemented a generative AI system for CAD design
- Fine-tuned Large Language Models (LLM) for specialized design tasks
- Integrated multiple LLMs using Retrieval-Augmented Generation (RAG)

Stock Market Prediction System

- Developed a hybrid prediction model combining sentiment analysis with time series algorithms
- Implemented and optimized ARIMA, RNN, LSTM, and 1DCNN models
- Achieved improved accuracy through sentiment analysis integration

Robotic Arm Movement Classification

- Built CNN and RNN models for classifying robotic arm movements using vibration sensor data
- Implemented real-time classification system with high accuracy
- Optimized model performance for production deployment

Advanced Face Generation

- Developed and trained FCC-GAN model on FFHQ dataset
- Implemented sophisticated image generation pipeline
- Optimized model architecture for improved generation quality

HACKATHON EXPERIENCE

Cathay Pacific Hackathon 2024 (Semi-finalist)

Role: Project Director & Developer

- Architected and developed an iOS application using SwiftUI, integrating LLMs for intelligent cargo management
- Implemented computer vision algorithms for enhanced barcode scanning, improving accuracy by handling damaged inputs
- Led agile development process, managing sprints and coordinating team deliverables

CityHack 2022 (Finalist)

Role: Project Director & Developer

- Developed full-stack application for aggregating and managing hackathon events worldwide
- Implemented results-tracking system with robust backend architecture and API integration
- Managed project lifecycle from requirements gathering to deployment, ensuring on-time delivery

EDUCATION

Bachelor of Engineering in Intelligent Manufacturing Engineering

City University of Hong Kong

- Relevant Coursework: Python Programming, C++ Programming, Machine Learning, Deep Learning, AI & Advanced Technology, Project Management
- Final Year Project: Developed an AI-powered design system using LLMs and RAG techniques