Farhan Yusuf Khan

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EXPERIENCE

Career Hackers Hong Kong
GenAI Software Developer Intern Jun 2025 – Aug 2025

- Built onboarding workflows and data pipelines for an AI interviewer/ATS, reliably storing and updating company information and assets in **MongoDB** and **AWS S3** with validation and access controls.
- Implemented recruiter-facing dashboard features—candidate notes, a floating resume viewer, and a custom video player (PiP/timestamps)—in **Next.js**/**React** with **Express** APIs.
- Built data retrieval and caching layers and integrated **LLMs** to extract structured insights from video assessments and resumes, surfacing them in the dashboard and securely storing results via backend pipelines.

Teaching and Learning Innovation Centre, The University of Hong Kong Hong Kong
Student Research Assistant Mar 2024 – Apr 2025

- Collected research data from 500+ participants through **Amazon MTurk** and **CloudResearch**, delivering complete datasets aligned with study protocols.
- Prepared high-quality datasets by cleaning, transforming, and validating participant data using **Python** (**Pandas**, **NumPy**) and **Excel**, enabling reliable analysis for research initiatives.
- Strengthened **QA** for web applications by executing product tests and documenting bugs in detail, informing developer fixes and improving product reliability.

Vidi Labs - Seekr Hong Kong
Technology Intern - Impact Lab Feb 2025 - Apr 2025

- Advanced an AI wearable assistive device for the visually impaired by enhancing the **scene detection model** through targeted data collection and labeling, improving scene understanding.
- Scaled training data by retrieving 30,000+ samples via manual curation and Python tooling—using **Selenium** for web scraping, **pandas** for parsing/cleaning, and **PIL** for image processing—to diversify model inputs.
- Supported business initiatives by conducting in-depth research and synthesizing findings.

Department of Computer Science, The University of Hong Kong Hong Kong
Student Teaching Assistant Sep 2023 - Nov 2023

- Led weekly tutorials for Intro to Computer Programming, teaching Python fundamentals and providing support (HKU CS).

PROJECTS

Parallelbot May 2025

Implemented a **C** inference engine for transformer-based **LLMs** by parallelizing transformer operations with a reusable POSIX pthread thread pool.

- Utilized **pthreads**, **mutex locks**, and **condition variables** to implement a reusable thread pool for dynamic task assignment and synchronization across mat-vec and attention computations.
- **Parallelized matrix–vector multiplication** by partitioning rows among threads and **multi-head attention** by distributing heads, achieving concurrent execution without race conditions.

UniHaven – Student Accommodation Platform Apr 2025

Developed a full-stack web application using **Django** to streamline student housing at HKU, following Agile methodology with iterative sprints and product backlogs.

- Implemented RESTful APIs with **Django REST Framework** for managing listings, reservations, and ratings; dynamically calculated geo-distances using government APIs.
- Designed a role-based access system for students and staff, supporting secure login, redirection flows, and permission-guarded actions.
- Followed **Agile principles**, executing sprint planning, backlog grooming, and continuous integration to ensure delivery of testable, incremental features.

EDUCATION

The University of Hong Kong, Hong Kong Sep 2022 - Jun 2026
Bachelor of Engineering in Computer Science

- Recipient of HKU Belt and Road Scholarship
- **Relevant Coursework:** Applied Deep Learning, Artificial Intelligence, Machine Learning, Operating Systems, Data Structures and Algorithms, Data Science, Object Oriented Programming with Java, Database Management Systems

ADDITIONAL SKILLS AND EXPERIENCE

Programming: Python, C, C++, JavaScript, Typescript, Java, R, HTML, CSS, SQL, PHP
Tools: Docker, AWS, Pytorch, Matplotlib, Django, MySQL, MongoDB, ReactJS, Node.js