**GU Yi**

+607-379-2862 | yg642@cornell.edu | [GitHub](https://github.com/Rubiscol)

**EDUCATION**

**The Cornell University The United States | Sep. 2024-Dec. 2025**

* Master of Engineering of Electrical and Computer Engineering

**The** **Hong Kong University of Science and Technology (HKUST) Hong Kong | Sep. 2020-Jun. 2024**

* Bachelor of Engineering in **Computer Science** with **First Class Honors**.
* **GPA**: 3.84/4.0 **Rank**: 6/112 (Top 5%)

**National University of Singapore (**Exchange Program**) Singapore |Jan. 2023-May 2023**

* **TECHNICAL SKILLS**
* **Languages**: Native in Chinese, Highly proficient in English (TOEFL 110, GRE 325+4.0)
* **Computer Programming**:Java, C++, Python, Scala, Golang, JavaScript
* **Programming Tools**: PyTorch, OpenCV, Javafx, Hadoop, Spark
* **Programming skills**: Software Development, Algorithms, Image Processing, Deep Learning, Cryptography, Front-end Development, Cloud Computing

**INTERNSHIP**

**Dresio Limited,** *AI Engineer | Python, Dart* **Hong Kong | Jun. 2023-Aug. 2023**

* Trained AI models for a local pillow manufacturer to remotely measure human body data using YOLOv8 and Mediapipe for keypoint detection.
* Developed Accudex Lite, a rehabilitation application based on AI keypoint capture, designing login and game interfaces using Flutterflow.
* Engineered the Controller component of Accudex Lite, utilizing MLKit to capture human body keypoints and converting them into control inputs for the Flame game engine.

**PROJECTS**

**Raft Go |** *Golang, gRPC* **Hong Kong | Aug. 2024**

* Developed a **high-concurrent** Raft consensus system in **Go** for maintaining replicated logs across **distributed systems**.
* Implemented leader election and heartbeat mechanisms using **RPCs** to ensure consistent leadership and fault tolerance.
* Designed and coded the logic for appending new log entries, ensuring data consistency and reliability.
* Passed all unit tests for leader election, log replication, state persistence, and snapshot handling using go test framework.

**Live Chatroom |** *JavaScirpt* **Hong Kong | Nov. 2023**

* Developed a user-friendly login and chat interface using **JavaScript** and **CSS**.
* Implemented server-client communication with **WebSockets** for real-time chat functionality.
* Utilized Express.js to build a remote server to handle account registration, login, chatroom display, and message posting.

**Agroa |** *Java, Solidty*  **Hong Kong | Jan. 2022-Dec. 2022**

*Supervisor:* [*Prof. Dimitris Papadopoulos*](https://facultyprofiles.hkust.edu.hk/profiles.php?profile=dimitris-papadopoulos-dipapado)

* Implemented a **Java**-based financial data market achieving data privacy, output verifiability, and atomicity of payments.
* Designed **front-end Android** user interfaces for data generators, brokers, and consumers.
* Developed **back-end services** to enable data aggregation and auto payment using **Solidity** on Ethereum smart contract.
* Applied **Web3J** protocols to enable secure communication between clients and remote smart contract.
* Applied **zero-knowledge proof** protocol for verifiable data transactions between data consumers and brokers.

**HONORS & AWARDS**

* 2023-2024 CSEBest Final Year Project (**Champion**)
* Non-local Candidate of HKSAR Government Scholarship (HK$80,000 per year)
* HKSAR Government Scholarship fund - Reaching Out Award (HK$10,000)
* HKUST Student Leaders Program (SLP) Award
* Dean's List (2020 Fall, 2021 Spring, 2022 Spring, 2022 Fall, 2023 Fall, 2024 Spring)

**RESEARCH PUBLICATIONS**

* Gu, Y., Lin, Y., Chen, Y., Cheng, K. T., & Chen, H. (2024, October). Revisiting Deep Ensemble Uncertainty for Enhanced Medical Anomaly Detection. In International Conference on Medical Image Computing and Computer-Assisted Intervention. **(Early accepted as Top 11%)**