YAO, Yutong

Address: Pokfulam Road 109,Hong Kong

Email: u3597462@connect.hku.hk**, Phone number:** (+852)67914926

PERSONAL PROFILE

Computer Science student (CGPA 3.82/4.3, First Class Honours) at The University of Hong Kong and UC Davis exchange scholar. Passionate about AI-driven robotics, computer vision, and human-computer interaction. Experienced in building intelligent systems for sports analytics, medical robotics, and bioinformatics.

SKILLS

- **Programming / Scripting Languages:** C++, Python, Java, JavaScript, HTML, CSS, PHP
- **Machine Learning & AI:** PyTorch, Scikit-learn, YOLOv8, OpenPose, LLM prompting & evaluation
- **Robotics**: Franka Emika (libfranka), Robotics Toolbox (RTB), Kinematics & trajectory planning
- **Backend & Systems:** FastAPI, Node.js, MySQL, Firebase, REST APIs, Docker, Linux servers
- **Mobile & Frontend:** Android Studio (Kotlin), React basics, Figma UI/UX
- **Operating Systems:** Linux, macOS, Windows
- **Languages:** Mandarin (Native), English (Professional working proficiency), Cantonese (Conversational)

EDUCATION

The University of Hong Kong *09/2022-06/2026*

Bachelor of Engineering, Major in *Computer Science*

- CGPA: 3.82 out of 4.3 (First Class Honor)
- Dean's List (Top 10%) of both 2022-2023 and 2023-2024
- Lee Shau Kee Scholarships for Student Enrichment (HKD 12,000)
- Mitacs Globalink Research Internship Award (CAD $8,760)

University of California, Davis *01/2025-06/2025*

Undergraduate Exchange Program, Major in Computer Science

- Achieved a perfect GPA (4.0/4.0) across 5 core Computer Science courses during exchange study

RESEARCH EXPERIENCE

XLANG Lab, The University of Hong Kong *09/2025-Present*

Research Assistant **Supervisor: Prof. Tao Yu**

- Contributing to training a VLA general policy capable of executing detailed natural language commands, targeting ICML/CoRL 2026 submission
- Using an AI-based pipeline to refine and enrich dataset labels, conducting real-robot evaluations of policy.

MEDCVR Lab, University of Toronto *06/2025-09/2025*

Globalink Research Internhip **Supervisor: Prof. Lueder Kahrs**

- Developed a unified Python framework integrating real and simulated control of multiple Franka Emika Panda robots, which was later adopted for teaching in UTM's course CSC376H5 – Fundamentals of Robotics.
- Enabled advanced motion planning, testing, and deployment in a single environment to support surgical robot autonomy.

Bioinformatics Lab, The University of Hong Kong *09/2024-08/2025*

Research Assistant **Supervisor: Prof. Ruibang Luo**

- Benchmarked algorithms for detecting RNA A-to-I editing, contributing to improved genomic modification analysis
- Conducted comparative testing on existing models and datasets to evaluate accuracy and computational efficiency.

VIA Lab, University of California Davis *01/2025-06/2025*

Research Assistant **Supervisor: Prof. Dongyu Liu**

- Built a multimodal time-series analytics platform "Speak to Draw" enabling users to query data using natural language and sketches, targeting EuroVis 2026 submission.
- Designed AI-based interpretation of trends, anomalies, and correlations, improving accessibility for non-expert users.

PROFESSIONAL EXPERIENCE

Faculty of Engineering, The University of Hong Kong *09/2024-12/2024*

Teaching Assistant, COMP2501 Introduction to Data Science and Engineering

- Guided Year2-3 students in data preprocessing, analysis and visulization projects using Python and Pandas.
- Graded assignments and provided feedback on data pipeline design and reporting clarity.

Sohu.com *07/2024-08/2024*

Software Engineering Internship, Intelligence Platform Team

- Improved Elasticsearch-based app search systems, optimizing pipelines across test(V8.40) and production (V5.4.0).
- Reduced build runtime by 70% through dependency restructuring and code optimizatiion

Faculty of Engineering, The University of Hong Kong *09/2023-12/2023*

Teaching Assistant, ENGG1330 Introduction to Python Programming

- Assisted first-year engineering students in mastering programming fundamentals and debugging exercises.
- Conducted lab tutorials and supported students in developing logical problem-solving skills

PROJECTS

Hooper Sports, Basketball Smart Coach *05/2024-02/2025*

Hong Kong InnoX Entrepreneur Summer Camp

- Designed a smart sleeve and computer vision system to analyze basketball shooting form using motion sensors
- Won InnoX No.1 prize and get HKSTP IDEATION funding (HKD 100,000) for innovation in AI-based athletic training

AutoScout, Real-Time Player Tracking and Tactical Analysis for American Football Film *09/2025-Present*

Capstone Project **Superviser: Hengshuang Zhao**

- Building an automated AI system for real-time football analysis using multi-view detection, tracking, and homography.
- Developing a 2D analytics platform to interpret formations and predict tactical tendencies.

LEADERSHIP & EXTRACURRICULAR ACTIVITIES

The Vice Present, Cross-culture Students and Scholars Association in The University of Hong Kong (CSSAHKU) *09/2022-Present*

- Led an Executive Committee of ~80 members; oversaw 6 sports teams and 12 enrichment clubs, coordinating operations and resource planning.
- Organized 20+ large-scale events with 100+ participants each and secured sponsorships from 10+ major companies, including HSBC.

Captain and Starting Quarterback, Hong Kong Cobras American Football Team *09/2023-Present*

- Leaded the team from two winless seasons to playoff, achieving a 62% completion rate, 200 passing yards, and 2TD per game.
- Rebuilt the team's training and film-study system, recruited 15+ new players, and led strategic preparation.