Mr. Hanlin CAI

Systems Engineering Intern
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RESUME OBJECTIVE

Highly motivated and cooperative undergraduate majoring in automation, applying for a **Systems Engineering Intern** position at EVgo. Well-equipped to leverage my working knowledge of embedded system, Python, Arduino, power supply and experience in electronic troubleshooting activities to contribute to the success of EVgo's mission.

EDUCATION

- **Fuzhou University (China-Ireland Cooperative Program, Full time at FZU)** — Fuzhou, China
  Bachelor of Engineering - Automation; CGPA: 3.82/4.00; Rank: 5/60 — *Sep 2020 - June 2024*
  Bachelor of Science - Robotics and Intelligent Devices (Maynooth University, Ireland, Combined Degrees)

  Courses (All 4.00): *Control System, Digital Systems, Embedded Systems, Signal Processing, System Dynamics, Algorithms and Data Structures, Object-Oriented Programming, Operating System, Engineering Mathematics, Differential Equations, Physics for Engineers*

SKILLS SUMMARY

- **Programming**: Python, MATLAB, JAVA, C++, HTML, CSS, JavaScript, SQL, Bash
- **Tools**: GIT, Docker, Conda, Jupyter, Stata, Navicat, OBS, LaTeX, EndNote
- **Platforms**: Linux, macOS, Windows, Web, ROS, Cloud, Arduino, Raspberry Pi
- **Languages**: English (Fluent), Mandarin (Native), Hokkien (Native), Japanese (Basic)
- **Soft Skills**: Leadership, Public Speaking, Time Management, Pressure Management

EXPERIENCE

- **Huading Intelligent Manufacturing Technology Co. LTD** — Offline
  Embedded Development Intern (Full-time, supervised by SN.ENGR Yuxiong Xia) — *Feb 2023 - Present*
  - **Cloud Database**: Designed a Cloud database to store the data collected by various sensors in industrial scenarios.
  - **Data Visualization**: Utilized JavaScript framework to visualize the instrumentation data on client management panel.
  - **Ratchet PHP WebSocket**: Implemented a WebSocket for low-latency real time exchange of posts and thread updates.

- **Key Lab of Industrial Automation Control Technology and Information Processing** — Offline
  Research Assistant (Full-time, supervised by Prof. Zhezhuang Xu) — *Dec 2022 - Present*
  - **RMS Testbed**: Establish and improve a Real-time Monitoring System (RMS) Testbed for IoT cybersecurity research.
  - **Detection Algorithm**: Designed a supervised learning algorithm to identify and classify malicious network traffic.
  - **Management**: Collaborate with Prof. Xu to manage and tutor 6 freshmen & sophomore members in our laboratory.

PUBLICATIONS

- **Deep Residual Neural Network for Efficient Traffic Sign Detection, First Author**: Accepted by 2023 International Conference on Artificial Life and Robotics (ICAROB 28th), advised by Dr. Chin Hong Wong and Dr. Wei Hong Lim.

- **An IoT Garbage Monitoring System for Effective Garbage Management, First Author**: Accepted by 2022 International Conference on Computer Engineering, Network and Intelligent Multimedia, advised by Dr. Chin Hong Wong.

- **RMS Testbed for IoT Cybersecurity Using Machine Learning Based Approach, First Author**: Working paper, advised by Prof. Zhezhuang Xu and Dr. Chin Hong Wong, still under working and expect to be finalized in May 2023.

HONORS AND AWARDS

- First Prize Scholarship **(Three Times, ¥15000*3)**, Second Prize Scholarship (One Time, ¥10000) of FZU
- First Prize (Fujian Competition Area) in China Undergraduate Mathematical Contest in Modeling - Dec, 2022
- Best Student Project of Maynooth International Engineering College in Academic Year (Teamwork) - Oct, 2022
- Third Prize in China National College Student Computer Design Competition (Electronic Track) - Aug, 2022
- Champion of 100-meter Freestyle Swimming Competition of Fuzhou University - June, 2022

VOLUNTEER EXPERIENCE

- **Deputy President of Volunteer Department, Youth League Committee of FZU** — Fuzhou, China
  Took charge of the planning, operation, and publicity of FZU's volunteer service work. — *Sep 2021 - Sep 2022*

- **Top 10 Best Volunteers (Only 10/30000) of the year 2021-2022 at FZU** — Fuzhou, China
  Organized 39 activities, personal volunteer service time exceeded 240 hours in this year. — *May 2021 - May 2022*

- **Outstanding Volunteer in 44th Session of the World Heritage Committee** — Fuzhou, China
  During the committee, responsible for 11 volunteer activities with over 890 participants. — *June 2021 - July 2021*