Andrew Kan

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EDUCATION

B.Eng. Computer Engineering Expected May 2025
McGill University (GPA: 3.76/4.0) *Montreal, QC*

- Relevant Coursework: Computer Vision, Applied Machine Learning, Operating Systems, Computer Architecture, Communication Networks, Digital Systems, Human-Computer Interaction.

WORK EXPERIENCE

R&D Engineering Intern May 2024 – Aug 2024
Stryker *Portage, MI*

- Prototyped embedded C++ code for medical instrument controls using STM32 microcontroller and CAN.
- Designed, verified 2 production-level circuit boards using Altium, focusing on communication & charging.
- Led automated verification testing for handpiece modification, ensuring quality standards & requirements.

Systems Engineer Intern May 2023 – Aug 2023
Pratt & Whitney *Longueuil, QC*

- Revamped AWS Lambda functions for engine fault detection, resulting in a 75% speed performance boost.
- Automated big data analysis of 500+ files to efficiently identify errors for product launch using Python.
- Slashed manual testing efforts by 40% by redesigning testing frameworks to integrate parquet data format.

System Operations Intern Jun 2022 – Aug 2022
PTC *Boston, MA*

- Built 7 Ansible modules and a custom Slack app utilizing REST APIs and Python to enhance automated deployment and monitoring of infrastructure and software for Onshape, a cloud-native CAD program.
- Achieved 30%+ improvement in CPU efficiency by reconfiguring logging pipeline across product servers.
- Reduced log parse failures by 97% in production while identifying, investigating, resolving 25+ Jira bugs.

Data Quality Assurance Volunteer Jun 2021 – Apr 2022
Broadstreet Institute *Remote*

- Validated 5k+ datapoints weekly for COVID-19 research dataset, ensuring accuracy with multiple sources.
- Detected, researched, and addressed 100s of data anomalies and discontinuities for 80+ US counties.
- Streamlined workflows by automating various processes using web scrapers and APIs, increasing efficiency by 95%+. Developed and maintained project infrastructure for seamless data collection.

LEADERSHIP

Electrical Division Lead Sep 2023 – Present
McGill Robotics, Autonomous Underwater Vehicle (AUV) *Montreal, QC*

- Orchestrate the design, integration, and testing of electrical systems, collaborating closely with mechanical and software teams to ensure reliability and performance in real-world conditions and competitions.
- Develop and test C++ firmware for systems including actuator arm and display using Teensy and ROS.
- Organize outreach including RoboHacks, a hackathon to inspire 100+ students to explore robotics.

Co-Director Apr 2022 – Present
HackMcGill *Montreal, QC*

- Lead team of 30 to organize large-scale hackathons with 600+ participants and 20+ technical workshops, ensuring seamless execution and impactful experiences, while fostering inclusivity for all skill levels.
- Oversee securing of $50k+ in sponsorships, strategically manage budget to optimize resource allocation.

SKILLS

Programming Languages: Python, C, C++, Java, VHDL, ARM Assembly
Software: Arduino, STM32, AWS, Elastic Stack, Docker, Quartus, SPICE, Altium, MATLAB
Tools: Unix/Linux, REST APIs, Git, FPGA, electrical test equipment, Jira, Agile/Scrum
Languages: English, French