IAN M. KIM

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EDUCATION

Dartmouth College	Expected 2024
Computer Science Major, Philosophy Minor	Honor List

Relevant Coursework: Object Oriented Programming, Android, Applied CS, Discrete Mathematics, Algorithms and Data Structures, Software Design & Implementation.

SKILLS

Languages	C++, Python, Rust, Java, HTML/CSS/JS, ROS
Web	Flask, GoFiber, PostgreSQL, MongoDB, IPFS, Docker, Heroku PaaS, AWS EC2, S3
Embedded	Nvidia Jetson / Xavier, RedHawk RTOS, Arduino

EXPERIENCE

Software Engineering Intern — June 2023 - September 2023
Neuralink Inc — *Fremont, CA*

- Develops ultra high bandwidth brain-machine interfaces to connect humans and computers.
- Owned verification software for robotic surgery system for automated brain electrode insertion
- Created a C++ based service manager interface for remote monitoring and service manipulation on robot and operator devices

CTO & Co-Founder — Winter 2020 - Present
Daelus Space Inc — *San Francisco, CA*

- Led a team of three engineers to build cost-effective, reliable swarm rover prototypes for lunar In Situ Resource Utilization (ISRU) and raised a six-figure seed round from Soma Capital and $60,000 worth of partnership support from Fletcher Industries.
- Wrote a novel off-road path planning and control software for simulated lunar environments with multiple sensor inputs (Ouster LiDAR, RGB Camera) which led to 2 customer LOI signed. [RUST, C++, Python, ROS]

Autonomy Intern & Engineer — March 2022 - July 2022
Ghost Robotics Inc — *Pennsylvania, PA*

- Solely developed a CUDA-accelerated lattice path planner for LiDAR data to cut inference times down to sub 50ms on the most widely deployed quadruped robots for the US and allied defense applications. [C++, CUDA, Python]
- Put in charge of upgrading and maintaining control software for Explosive Ordinance Disposal (EOD) robotic arm to increase compatibility and maintainability. [C++]
- Solely created a REST API for mission control software through shared memory communication and WebSockets to reduce click to action latency down to 100ms. [Python/Flask]

VP of Robotics SW — February 2023 - present
Mattimoe Technologies LLC — *Palo Alto, CA*

- Led company's robotics and autonomy research and development resulting in successfully delivering Technology Readiness Level (TRL) 2 prototype for an automated microdrone system for combat scenarios
- Built gRPC based high-throughput AI inference server to run on the Jetson Orin embedded system to enable edge code generation and VQA for drone navigation

Co-Founder — January 2023 - May 2023
Franca AI Consulting Inc — *San Francisco, CA*

- Contracted by three funded start-ups as a paid consultant to integrate Large Language Model solutions into their already-existing products.
- Bootstrapped the firm and took it to profitability within two months of incorporation.

PROJECTS

Arkad AI Used generative language models to predict electorate response to political messaging with 243% higher than baseline emotion prediction accuracy and 23% higher than baseline agreement prediction accuracy. [Python, PyTorch, Bash, Go]

PyDynamica Made an agent-based simulation for studying macroeconomic phenomena based on Klaus Jaffe's work. [Python]