KAI NAKAMURA

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SUMMARY

Highly motivated and academically accomplished student pursuing a double major in Computer Science and Robotics Engineering, strong programming skills and a track record of successful projects. Pursuing a Summer 2024 internship to contribute to innovative projects, expand my knowledge, and make a significant impact in a dynamic team.

EDUCATION

Worcester Polytechnic Institute, B.S. Computer Science, B.S. Robotics Engineering | 4.0 GPA   *Graduating May 2025*
Raisbeck Aviation High School, Valedictorian of the 2021 Class | 4.0 GPA   *Graduated 2021*

PROJECTS

Pick-and-Place Robotic Arm, MATLAB | *kainakamura.com/project/rbe3001*   *Sept. – Oct. 2023*
- Programmed a 4-DOF serial robotic manipulator in MATLAB to pick up and sort colored objects
- Implemented forward and inverse kinematics, trajectory generation, and a robust computer vision system

Multi-Robot Collaboration, C++ | *kainakamura.com/project/rbe2002*   *Summer 2022 & 2023*
- Programmed and assembled three robots to work together to escape from a randomized grid-based maze
- Established inter-robot communication over Wi-Fi using ESP32 microcontrollers with MQTT messaging

Solar Panel Replacer, C++, SolidWorks | *kainakamura.com/project/rbe2001*   *Jan. – March 2022*
- Designed and manufactured a robot to autonomously replace solar panels on a miniature house
- Utilized SolidWorks to create a four-bar linkage system, gripper mechanism, and compound gear box

Open Source Plugin for Charity, Java | *kainakamura.com/project/speedrun-showdown*   *Dec. 2020 – 2022*
- Created Minecraft Speedrunning Plugin for an event with 32 world record-holding players and top content creators
- Assumed full responsibility for designing and developing the plugin to align with event staff's requirements
- Instrumental in facilitating over $10,000 in donations for Plant with Purpose through the plugin's integration

PROFESSIONAL EXPERIENCE

Coding Instructor, iCode | Bellevue, WA   *Summer 2022 & 2023*
- Taught over 150 total students, aged 8-16, by leading 16 different week-long courses in coding and engineering
- Provided meaningful feedback on class materials and student dynamics in weekly status reports to parents
- Led diverse courses including: Vex Robotics, Lego Robotics, Drone Artificial Intelligence, Digital Art, Roblox Game Development, Construct 3 Advanced Game Design, Java Programming

Web Developer, Seattle Sounders Alliance Council | Remote   *June – Sept. 2021*
- Redesigned UI and restructured organization for a WordPress site to improve readability and navigation

Web Developer, Seattle Society of Flight Test Engineers | Tukwila, WA   *March – July 2018*
- Collaborated with a small group of students and met biweekly with Boeing Engineers to create a custom WordPress theme using HTML, CSS, JavaScript, and PHP

LEADERSHIP

Web-Tech Chair, Sigma Pi Fraternity | *sigmapigammaiota.org*   *Feb. 2023 – Present*
- Responsible for maintaining and updating the website of the Gamma Iota chapter
- Organize and lead weekly committee meetings to discuss key initiatives and educate new members

Lead Programmer, FIRST Robotics Competition Team | Seattle, WA   *Sept. 2017 – June 2021*
- Facilitated software development for Skunk Works Robotics, FRC Team 1983
- Responsible for mentoring new programmers and conducting regular code reviews

SKILLS

Java, C/C++, Python, JavaScript, TypeScript, HTML/CSS, AWS, MATLAB, Git, Vim, React, Next.js, Autodesk Inventor