

Aidan Chien

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TECHNICAL SKILLS

Languages: Python, Java, Next.js, React, TailwindCSS, C++, JavaScript, HTML/CSS

Organization/Design Software: Git, GitLab, SolidWorks, MATLAB, Adobe Suite, Figma

PROJECTS

PMI Auto Generator | [GitHub](#) | *Python, AHK*

April 2025

- Innovated a pipeline between technical drawing PDFs and 3D CAD models. This is a breakthrough due to the non-feature-based structure of 3D model file types, making it near impossible to extract desired dimensions. However, by building around the emerging QIF file format—where model files are based in XML—my program algorithmically calculates and matches hidden part dimensions with text-based annotations—easily extractable from a PDF technical drawing. It then attaches accurate annotation information to each model dimension, eliminating manual intervention and cutting out 30% of the total part preparation time

MBD Macro | [GitHub](#) | *AHK*

February 2025

- Developed macro application that seamlessly integrates with the MBD (model-based definition) software, enhancing user experience and improving workflow efficiency by 50% when annotating models manually

Chess Emulator | [GitHub](#) | *Java*

November 2022

- Led two other students in the design of a two-player chess emulator in Java using AWT and Swing and received highest score in class
- Coordinated team with Agile methodologies, holding sprints and daily scrum meetings to meet internal deadlines

Reaction Time Test | [GitHub](#) | *HTML, CSS, JavaScript*

May 2023

- Developed single-page HTML application using HTML, CSS, and JavaScript allowing users to calculate their reaction time with keyboard and mouse

EXPERIENCE

Research & Development Engineer

2024 – 2025

Autonomous Machining

Kirkland, Washington

- Built first-of-its-kind system adding manufacturing details to 3D models, cutting part preparation labor by 30% and personally selected by CEO to present for parent company's leadership team
- Analyzed inefficiencies in file management and information monitoring and wrote custom Python and AHK scripts tailored to the company's needs, resolving tasks that previously required human input
- Designed and 3D printed custom organizational tools with SolidWorks, promoting a more orderly and productive environment
- Implemented quality assurance checks using CMM equipment and QMS software to ensure parts fulfill customer specifications and AS9100 standards

Customer Services as Barista

2023 – 2024

Starbucks

Bellevue, Washington

- Enhanced customer experiences through promotion of products, food and drink creation, and facilitating a sanitary and stocked workplace
- Improved efficiency of blended drink creation by 7% by suggesting organizational improvements, affecting 20% of total drinks crafted
- Internalized a customer-first attitude via Starbucks' "Barista Approach" training program

EDUCATION

University of Waterloo

Waterloo, ON

Bachelor of Applied Science (BASc), Systems Design Engineering

- Cumulative GPA: 3.99/4.00
- President's Scholar of Distinction - awarded for 95+ average at admission

Issaquah High School

Issaquah, WA

High School Diploma — US/Canada Dual Citizen

- Cumulative GPA: 3.98/4.00