



## Cameron Dugan

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### EXPERIENCE

#### **ML Development Intern at Island Exterior Fabricators in Boston, MA** Sep 2023 - Dec 2023

- Automated improved clarity and accuracy of essential manufacturing drawings
- Mitigated potential errors and confusion during assembly process
- Developed neural networks to adjust label positions in manufacturing drawings

#### **AI Research Assistant at WIT in Boston, MA** Jan 2023 - Sep 2023

- Provided research for the implementation of auto framing in Amazon's Echo Show 10
- Indirectly contributed to multiple masters thesis defenses
- Automated processes and visualizations for AI model fine-tuning
- Developed a novel neural network training loop for spatial adversarial AI purposes
- Modified site-packages to setup a Raspberry Pi 4 to run our TensorFlow model

#### **ABAP Intern at Charles River Labs in Remote Wilmington MA** June 2022 - Aug 2022

- Learned and practiced SAP + ABAP Development Methodologies
- Automated email tasks in Microsoft Power Automate

### EDUCATION

#### **Wentworth Institute of Technology (WIT) | Boston, MA** Sep 2020 - Aug 2024

- Bachelor of Science in Computer Science
- Major GPA 3.6/4.0, Overall GPA 3.47/4.0
- SCDS Academic Excellence Award Winner 2024
- Dean's List Fall 2021, Fall 2022, and Spring 2024

### PROJECTS

#### **NabGo in Go, Python, and JS** | <https://github.com/camerondugan/NabGo>

- Designed and implemented NabGo, an online position analysis platform for Go
- Developed an board image upload feature that allows for easier use on complicated Go positions

#### **Genetic Algorithm in Rust** | [gitlab.com/cameron.dugan/genetic-algorithm-in-rust](https://gitlab.com/cameron.dugan/genetic-algorithm-in-rust)

- Created a simple and clean parallel genetic algorithm in Rust using the standard libraries

#### **Practice Guitar Tabs in Python**

- Integrated many separately developed features to work together
- Used Fast Fourier Transforms(FFT) to analyze frequencies in note detection module

#### **Chess Engine in C#** | [gitlab.com/cameron.dugan/chess-challenge](https://gitlab.com/cameron.dugan/chess-challenge)

- Implemented a relatively strong chess engine in <150 lines of code
- Used Hamming Weights for bit counting on a bit representation of a chess board

#### **Succulent Multi-platform App in Flutter** (Individual) | [Google Play: Search \(camerondugan\)](https://play.google.com/store/apps/details?id=com.camerondugan.succulent)

- Incorporated a dynamic and smooth card-like interface with Flutter
- Designed plain-text back-end for quick save state editing

### ACTIVITIES

#### **Award Winner of VR Jam at Wentworth VR Event** July 2023

- Adapted an experience I made to run in VR using unique movement mechanics

#### **1<sup>st</sup> Place at WIT Game Jam** | <https://sire-inc.itch.io/you-are-not-a-clone> July 2023

- Developed an award winning 2D Platformer "You are not a clone" in a team environment

#### **Competitor for MIT Battle Code** | <https://battlecode.org> Jan in 2020-2024

- Finished 13th in Finals of 2020 and 18th US Qualifying of 2022
- Led a team to solve problems such as low resource path-finding and message communication

#### **Eagle Scout of Troop 272 from the Boy Scouts of America** August 2020

- Held leadership roles and developed skills for working with and leading teams of young adults
- Led and funded a project to build 4 picnic tables for Sargent Park in Nashua NH

### SKILLS

**Programming Languages:** Go, Python, Rust, Java, C++/C, Dart, Lua, Assembly, R