Flynn Duniho

https://flynnd273.github.io/

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Education

- **Worcester Polytechnic Institute (WPI)** — Worcester, MA
  Bachelor of Science in Computer Science — *August 2021 - May 2025*

Engineering Skills

- **Programming Languages**: Python, C#, C, Java, JavaScript, Rust, SQL
- **Frontend technologies**: Windows Presentation Foundation, WinForms
- **Tools**: Visual Studio, VS Code, NeoVim, git, Github CLI

Experience

- **Microsoft** — Redmond
  Software Engineer — *June 2025 - Current*
  - **Azure Databricks**: Maintain the online portal.
- **Worcester Polytechnic Institute** — Worcester, MA
  Teaching Assistant — *August 2023 - 2025*
  - **Foundations of Computer Science**: Helped students learn about different types of automata and how to use them.
  - **Intro to Algorithms Graduate Class**: Helping students with intro to algorithms graduate class.
  - **Office Hours**: Available online an in-person to provide personalised assistance to students.
  - **Teaching**: Explained the reasoning behind solutions so that students would be able to solve similar problems on their own.
- **Inquirium** — Remote
  Software Engineer — *May 2024 - August 2024*
  - **Incorporating AI**: Integrated Whisper.cpp into a video transcription GUI app.
  - **Unit Testing**: Authored frontend unit tests that validate the web UI presented to the user using Playwright and Django in Python.
- **Benchmark SW** — Bothell, WA
  Software Engineer — *May 2022 - August 2022*
  - **SQL**: Migrated Microsoft Access databases to SQL databases.
  - **XML**: Designed and wrote software to import data to the SQL database via custom XML files.
  - **Context-free Grammars**: Used context-free grammars to parse custom code to C# objects.
  - **WPF**: Built software in Windows Presentation Foundation to allow for creating technical drawings in a user-friendly drag-and-drop manner.
  - **Maintenance**: Rewrote existing code structure to be more maintainable in the long-run, and completed partially written software.
- **Tesco Controls** — Bothell, WA
  Software Engineer — *June 2021 - August 2021*
  - **WPF**: Wrote software to convert scanned images of technical drawings into an XML file outlining the elements of the drawing and the positions and connections, with the ability for the user to edit the layout.
  - **Image Detection**: Wrote custom image detection algorithms to match symbols and find both printed and highlighted lines.

Projects

- **Unity 2D Puzzle-Platformer**: Written in Unity C#. Built a dynamic text renderer that allows for rearranging words. https://github.com/FlynnD273/OnceUponA
- **Algorithmically Approximate Images Using Geometric Shapes**: Written in Python using NumPy and OpenCV. Generates images using only rectangles, ellipses, and lines. https://github.com/FlynnD273/GarticDrawer
- **Canvas assignment todo list**: Written in C#. Uses the public Canbas API to grab all pending assignments and writes them to a markdown list. https://github.com/FlynnD273/CanvasGetAssignments
- **Pearson mathematic notation parser**: Written in C#. Parses Pearson math notation and converts it into standard notation using context-free grammars. Also evaluates expression values. https://github.com/FlynnD273/ParsePearson