Durgan McBroom

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Skills / Qualities

Experienced software developer: fluent in Java, Kotlin, JavaScript, TypeScript, Rust, SQL, C++, C, and Python; Gradle, React, Docker, and NPM.

Conscientious employee: Strong communicator, reliable, punctual, personable.

Work Experience

Lab Assistant / MIT RLE   January 2026

Firmware Developer / MIT Motorsports   September 2025 - Present

Building serial debugging tools to simplify firmware development: desktop app allows developers to customize UI layouts and widgets to better analyze logs, and visualize output data through readouts and graphs. Built in C++, Rust, and Typescript.

Open-source lead Developer / Kaolin   March 2020 - September 2025

Kaolin is a plugin-development framework allowing developers to modify 3rd party applications (typically called modding) through JVM bytecode injection. First framework of this type to support dynamic dependency (Maven-like) resolution and other novel features. I founded Kaolin as a passion project during the 2020 pandemic.

Instructor / Coding With Kids   June 2025 - August 2025

Spent summer teaching 5-12 year olds various programming techniques / technologies: built adaptive lesson plans, taught online/in person, demonstrated the joy of problem solving.

Intern / Foundry10   June 2021 - August 2021

Used Spring Java, Docker, Kotlin, and ACID-compliant data storage to build out OAuth, and user-data storage systems alongside other interns and mentors.

Paid Musician & Coordinator / Garfield High School Gig Program   June 2022 - June 2025

Professionally employed to play small-group jazz gigs; became lead coordinator for the program in 2023, handling scheduling, customer interactions, band set-up and take-down for weddings, corporate events, fundraisers and street fairs.

Education

Massachusetts Institute of Technology / Degree expected: June 2029

Garfield High School / Degree earned: June 2025

Activities

Section Leader **/ Garfield High School Jazz band**   September 2023 - June 2025
Lead saxophone player and soloist for nationally award winning High School jazz band. Top 15 finalist in the Inter/national competition Essentially Ellington in 2024/2025.

Varsity Athlete **/ Garfield High Ultimate team**   September 2021 - June 2025
Leader and starting line for the #2 ranked high school boys Ultimate Frisbee team in the US.