

William C. Park

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Education

Brown University

Providence, RI

Sc.B. in Computer Science

Expected Graduation: May 2026

- GPA: 3.94
- Current and Core Coursework: Linear Algebra, Data Structures and Algorithms, Software Engineering, Computer Systems, Computer Graphics, Deep Learning, Computer Vision

Work Experience

Lockheed Martin, RMS

Middletown, RI

Software Engineer Intern

May 2024 – December 2024

- Developed a recording control application in Java for real-time SDI frame logging using Blackmagic hardware and GStreamer. Implemented UDP streaming to receive SDI inputs from UUV and display/record video streams. Designed for multi-instance use to provide redundancy.
- Implemented efficient data transfer between applications using Protocol Buffers for message parsing and serialization, improving communication speed and reducing data transfer errors.
- Designed a dynamic and user-friendly GUI using Java Swing to display real-time video streams and detailed hardware/software status information.

NASA, Ames Research Center (ARC)

Mountain View, CA

Software Engineer Intern

June 2023 – August 2023

- Conducted viability research on electric aircraft through flight simulations in the National Airspace System (NAS) using the NAS-Digital-Twin (NDT), a Java simulation tool.
- Debugged and unit tested the NDT, boosting output accuracy and code coverage. Parsed flight data files to generate realistic inputs modeling aircraft for the NDT, facilitating various statistical analyses.
- Analyzed NDT data outputs from MySQL database to project fuel burn, emissions, and turnaround times of aircraft in the NAS. Provided valuable operational and environmental insights.

Full Stack at Brown

Providence, RI

Full Stack Developer

February 2023 – May 2023

- Developed and deployed user-friendly websites with a team for clients, such as 180 Degrees Consulting and Meyers Lab, using Figma, React, and HTML/CSS.

Projects

Island Hopper

December 2024

- Developed a web-based game that samples Perlin noise to procedurally generate terrain, implemented orthographic and perspective cameras, and integrated audio player. Clean and user-friendly.
- Designed adaptive levels of terrain and water tessellation, optimizing rendering performance.

MoodMap

May 2024

- Created a web application that integrates the GeoApify and Spotify APIs to analyze users' Spotify listening history and determine their current mood. Implemented an algorithm to map moods to specific locations near the user, which are pinned on an embedded map.
- Used Google Authentication for secure user login and Firestore to store and manage location pins.

Finance Tracker

March 2022

- Developed an application using JavaFX featuring a built-in exportable spreadsheet to track finances, a querier that uses Jsoup to scrape search engine results for relevant news headlines.
- Implemented secure login and stored spreadsheet data using a PostgreSQL database.

Technical Skills

- **Programming Languages:** Java, JavaScript, C, C++, Python, HTML, CSS
- **Software Development Tools:** React, TypeScript, Three.js, Git, Docker, Jira, PostgreSQL