

Hunter Baker

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Skills

Programming Languages: Python, Java, C, C#, HTML/CSS/JS, TypeScript

Frameworks & Libraries: Flask, Next.js, Spring Boot, Android SDK

Tools & Platforms: Git, Linux, PostgreSQL, Redis, Docker, Agile / Scrum

Education

Laurel Ridge Community College – Associates in General Studies, 4.00 GPA

August 2023

James Madison University – Bachelors in Computer Science, 3.67 GPA

December 2025

- Societies: Upsilon Pi Epsilon (CS Honor Society), Alpha Lambda Delta
- Honors: Cum Laude, President's List, Dean's List
- Relevant Coursework: Operating Systems, Data Structures & Algorithms, Applied Algorithms, Software Engineering.

Projects

NavSys

github.com/hutnerr/navsys

- Built a fully functional GPS navigation system in Java from scratch, integrating a USB satellite receiver to parse real-time GPGGA sentences from GPS satellites into live location updates using a custom parser.
- Modeled road networks as a graph of streets, intersections, and segments using a custom geographic shape hierarchy, implementing both Dijkstra's and Bellman-Ford for pathfinding and benchmarking their performance characteristics.
- Architected the application using MVC, Observer, and Strategy patterns to cleanly separate concerns across navigation logic, live data updates, and interchangeable pathfinding algorithms.

Beast[code]: LeetCode Discord Bot

github.com/hutnerr/leetcode-bot

- Deployed a Discord bot self-hosted on a Raspberry Pi with 8+ months of uptime, integrating the unofficial LeetCode GraphQL API and implementing the observer pattern with custom time-based buckets to route per-server notifications for coding problems and contest alerts.
- Engineered an in-memory caching layer over JSON file storage with a custom Synchronizer to prevent cache/disk inconsistencies across concurrent reads and writes.

Black Box TUI Challenge

github.com/hutnerr/blackbox-challenge

- Built a complete interpreter in C# from scratch with a partner, implementing a custom lexer that tokenizes arithmetic, bitwise, logical, and relational operators alongside strings, floats, booleans, and type casting keywords.
- Designed a recursive descent parser across 13 precedence levels to construct abstract syntax trees with correct operator associativity, unary handling, and block scoping, evaluated using the Visitor pattern.
- Delivered 10 mystery functions as interactive terminal challenges where players reverse-engineer hidden behavior by writing and testing programs in the custom language via a live Terminal.Gui interface.

UnitED: Unit Calculator

github.com/hutnerr/united

- Built a Java unit conversion calculator with a 5-person team using Agile/Scrum, owning the full UI in JavaFX and a significant portion of the backend conversion logic.
- Wrote JUnit tests to validate conversion accuracy and edge cases, and facilitated Git workflow adoption across the team to resolve recurring merge conflicts.
- Implemented support for all standard unit types plus user-defined custom units with arbitrary ratios, enabling unconventional calculations like compound unit expressions across any user-specified dimensions.

Experience

ITAD Technician, Wisetek Solutions – Winchester, Virginia

July 2021 - April 2023 & May 2024 - March 2025

- Led a 6-person data-entry team maintaining high accuracy and daily processing quotas, while refurbishing and testing enterprise hardware (servers, switches, desktops, laptops) for reuse, resale, or recycling.
- Redesigned physical processing steps by identifying workflow inefficiencies, reducing per-technician processing time by ~30 minutes daily across four warehouse departments.