

Brandt Ousley

brandtrousley@gmail.com | 863-270-1860 | TAMPA, FL | www.linkedin.com/in/brandtousley

EDUCATION

University of South Florida

Tampa, FL

Bachelor of Science in Computer Science, College of Engineering
Minor in Psychology

May 2025

RELEVANT EXPERIENCE

Software Engineer | The Lunz Group

August 2025 – Present

- Owned the Bluejay costing platform from design through launch, developing a C#/NET Revit add-in that generates itemized, model-based cost estimates in 1–5 seconds of opening a model, replacing manual estimating.
- Designed the database schema and data-population procedure for a 75,000+ item RSMeans cost database, then led 4 interns to build and load it.
- Engineered a costing engine that compares element-level pricing against regional and national per-SF benchmarks, giving architects cost feedback during design.
- Built a synchronized Blazor dashboard integrating Autodesk Construction Cloud projects with AI-driven forecasts based on historical cost data.

Software Engineer Intern | The Lunz Group

May 2025 – August 2025

- Researched Revit API capabilities and architectural design workflows to determine the feasibility and technical approach for a predictive costing tool, the foundation for what became Bluejay.
- Designed the full database schema for the costing platform, structuring RSMeans cost data to support both element-level and per-SF estimating.
- Architected the end-to-end software design and project documentation, defining system components, scope, and development process in partnership with the BIM manager.
- Defined the system architecture and documented project scope, components, and development processes in partnership with the BIM manager.

TECHNICAL SKILLS

Programming Languages: C#, Python, JavaScript, C/C++, SQL

BIM & Cloud Automation: Revit API, Autodesk Construction Cloud (ACC), Revit 2024/2026

Frameworks & Tools: .NET, Blazor, React, Node.js, Express, Git, Linux, Visual Studio, Microsoft Azure

Web & Databases: SQL Server, MySQL, PostgreSQL, Relational Database Design, HTML/CSS

Core Concepts & Research: Software Development Life Cycle (SDLC), Algorithms, Embedded Systems, Human-Computer Interaction (HCI), Behavioral Analysis, Cognitive Psychology Principles

PROJECTS

Full-Stack Healthcare Web App | React, Express, PostgreSQL

- Co-led a 3-person team building a full-stack patient management app with a React frontend, an Express REST API, and a PostgreSQL database.
- Built React patient dashboards and a secure user authentication flow, giving each user access to their own records.
- Designed an 8-table relational schema powering patient data retrieval and updates, tested with 1,000+ accounts and 100,000+ records.

Custom Unix Shell | C, Linux

- Built a full-featured shell in C to recreate core terminal behavior, including command parsing, redirection, and parallel execution.
- Used low-level system calls to resolve executable paths and run commands directly through the operating system.
- Implemented built-in commands and error handling so invalid input is reported cleanly instead of crashing the shell.

Wi-Fi-Controlled Motor PWM System | Embedded C, TI Microcontroller, ESP32

- Designed and built a Wi-Fi-controlled PWM system that drives a 12 V DC motor, using a TI microcontroller and an ESP32 Wi-Fi module for wireless communication.
- Developed embedded C firmware that controls motor speed from smartphone app commands and shows real-time status on an LCD.

Autonomous Robot Motion Planning with Bug Algorithms | Python, Webots

- Implemented Bug Zero and Tangent Bug pathfinding algorithms so autonomous robots reached their goal while avoiding obstacles in 99% of simulated runs.
- Integrated real-time sensor data and camera-based object recognition into the navigation logic in Webots to improve accuracy.

BuddyBook Social Networking App | C++

- Built core social networking features, modeling users and their connections with profile graphs, vectors, and priority queues.
- Improved friend suggestions by running breadth-first search (BFS) over the friend graph, surfacing relevant connections to increase engagement.

ADDITIONAL WORK

Server Assistant | Casa Santo Stefano, Sicilian Restaurant

March 2024 – May 2025

- Interfaced with managers and servers to assist 200-500 customers daily and support \$10K-\$20K in daily revenue.

Inventory Assistant | Fastenal

May 2021 – March 2024

- Supported inventory operations for a \$1M+ warehouse by resolving 100+ daily inquiries over email, across national branches and updating inventory data using ERP tools.

Server | Mbird

January 2021 – March 2023

- Provided food and drink service to 100-200 customers daily, collaborating with managers to support service and help generate \$20K-\$30K in daily revenue.