Brandt Ousley

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EDUCATION

University of South Florida   Tampa, FL
Bachelor of Science in Computer Science with Minor in Psychology   **May 2025**

Relevant Coursework**:** Data Structures and Algorithms, Computer Architecture, Operating Systems, Software Engineering, Analysis of Algorithms, Embedded Systems, Database Design, Secure Coding, Discrete Mathematics

RELEVANT EXPERIENCE

Full-Stack Healthcare Web App
- Co-Led development of a full-stack healthcare web app using React.js, Express, and PostgreSQL, featuring user authentication, dynamic patient dashboards, and database integration with 8 relational tables and 20+ custom SQL queries including a trigger for unique ID generation

Wi-Fi-Controlled Motor PWM System
- Developed a Wi-Fi-controlled PWM system for a 12V DC motor (fan) using a TI microcontroller, ESP32 Wi-Fi module, Bluetooth terminal app, 2x16 LCD screen, and H-bridge motor driver, with embedded C programming to control motor speed via a smartphone app and display real-time speed updates on the LCD screen

Autonomous Robot Motion Planning with Bug Algorithms
- Developed and implemented motion planning algorithms (Bug Zero, Tangent Bug) for autonomous robots using Python, optimizing pathfinding and obstacle avoidance to achieve efficient navigation in simulated environments. Integrated camera-based object recognition and sensor data processing to enhance real-time performance

Custom Unix Shell ('Rush') – C, Linux
- Developed a full-featured Unix shell in C with command parsing, built-in commands (cd, exit, path), output redirection, parallel execution, path resolution, and robust error handling using low-level system calls

BuddyBook Social Networking App
- Engineered a social networking app in C++ utilizing vectors and graphs for dynamic profile management, and optimized friend suggestion algorithms with priority queues and BFS to boost user engagement and interaction

SKILLS

Languages: Python, C/C++, JavaScript, SQL
Web Development: HTML, CSS, React, Node.js, Express, Flask
Database: PostgreSQL, MySQL
Tools & Technology: Git, VS Code, Docker, Flask, WSL, Virtual Machines, Linux

WORK EXPERIENCE

Casa Santo Stefano - Server Assistant – Full time   Mar 2024-Present
- Streamlined service delivery and operational efficiency in a fast-paced restaurant environment by leveraging strong communication and teamwork skills, enhancing customer satisfaction and workflow

Fastenal - Manager Assistant   May 2021-Mar 2024
- Collaborated with a cross-functional team of managers, sales staff, and warehouse personnel to streamline inventory management and order fulfillment, boosting operational efficiency and reducing errors through data-driven strategies

M bird - Server   Jan 2021-Mar 2023
- Delivered stellar customer service in a fast-paced bar environment, using effective communication, multitasking skills, and teamwork to ensure smooth operations and contribute to overall team success and profitability