Ben Pullis

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Education

University of Minnesota Minneapolis, MN
Bachelor of Science in Computer Science; GPA: 3.76 *Expected Graduation: May 2027*

Projects

Drone Delivery Simulation | *C++, Git, GitHub, Docker, UML* Feb 2025 - May 2025

- Developed a 3D package delivery simulation enabling users to schedule deliveries across the University of Minnesota campus environment
- Implemented core design patterns, including Factory for entity creation, Observer for timely notifications, and Strategy for selecting between Dijkstra's, A*, BFS, or DFS path finding algorithms
- Collaborated in a four-person team using Jira to practice Agile workflows, Git for version control, and Docker for environment containerization
- Designed and implemented a custom extension enabling dynamic package handoffs between drones and automatic drone recharging based on battery thresholds
- Enhanced simulation realism by adding randomly moving humans and helicopters

Contact Log | *C*, GDB Sep 2024 - Oct 2024

- Created a contact log system in C with features for adding, searching, and displaying contact functionality
- Utilized dynamic memory allocation and deallocation to optimize performance and prevent memory leaks
- Included file I/O functionality to save and load contacts from both text and binary files
- Ensured robust system reliability through careful error handling and memory management techniques
- Used the GDB debugger for efficient debugging, improving program stability and correctness

Minesweeper | *Java* Apr 2024 - May 2024

- Built a Java-based Minesweeper game using key data structures including 2D arrays, stacks, and queues
- Implemented recursive revealZeros and revealStartingArea algorithms for dynamic gameplay
- Organized code into clean, modular classes with an emphasis on readability and structure
- Documented features, assumptions, and bugs thoroughly in a detailed project README
- Colaberated with a partner on design, development, and testing to meet project specifications and deadlines

Experience

Produce Clerk, *Cub Foods - Brooklyn Park, MN* July 2021 - Present

- Safely operated a forklift to move and organize product efficiently
- Placed daily orders ranging from $5,000 - $10,000 to help maintain appropriate levels of stock
- Ensured product freshness by removing expired and overripe produce
- Followed First-In-First-Out method by rotating produce to ensure freshness
- Maintained a clean department by sweeping, scrubbing, and wiping down displays
- Assisted other departments when needed including Meat, Dairy, Bakery, and Grocery

Technical Skills

Languages: C++, Python, Java, C, Ocaml
Developer Tools: GitHub, Docker, Jira, VS Code, IntelliJ, UML, Design Patterns
Libraries: NumPy
Relevant Courses: Data Structures & Algorithms, Program Design & Development, Machine Architecture