Ben Pullis

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EDUCATION

University of Minnesota   Minneapolis, MN
Bachelor of Science in Computer Science; GPA: 3.81   *Expected Graduation: December 2026*

EXPERIENCE

Teaching Assistant, *CSCI 3081W - Program Design and Development*   August 2025 - Present
- Host weekly office hours to help students overcome obstacles and better understand material
- Fairly and efficiently complete grading for projects, labs, assignments and exams
- Lead weekly labs by summarizing the week's material, explaining the requirements, and grading the results
- Maintain strong communication with the professor to ensure clarity with course and material expectations

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
- Followed First-In-First-Out method by rotating produce to ensure freshness across many departments

PROJECTS

Drone Delivery Simulation | *C++, Jira, 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
- Collaborated with a partner on design, development, and testing to meet project specifications and deadlines

TECHNICAL SKILLS

Languages: C++, Python, Java, C, OCaml
Developer Tools: GitHub, Docker, Jira, VS Code, IntelliJ, UML, Design Patterns
Relevant Courses: Data Structures & Algorithms, Program Design & Development, Machine Architecture, Operating Systems, Dev. Secure Software Systems, Internet Programming