# Allan (AJ) King

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## Education

**University of Minnesota, Twin Cities** — Minneapolis, MN
*Bachelor of Science in Computer Science* — *Aug. 2022 – May 2026*

- **GPA:** 3.5 - Deans List x4
- **Relevant Course Work:** Algorithms and Data Structures, Program Design and Development, Machine Architecture & Organization, Advanced Programming Principles, Operating Systems
- **Clubs:** Social Coding Club, Big 10 Esports team, Pickle ball Club

## Experience

**Teacher** — April 2024 – Aug. 2024
*Tech Academy* — *Eden Prairie , MN*

- Created engaging Minecraft scripts to introduce students to programming concepts
- Instructed students on basic artificial intelligence concepts
- Taught Python programming to 20+ students, improving their logical problem-solving skills
- Collaborated with fellow educators to enhance the learning environment

**Early Work Experience** — 2020 – 2023
*City of Eagan & Jersey Mike's Subs* — *Eagan, MN*

- Public parks maintenance
- Worked collaboratively with team members on food and other preparations to deliver superior customer service

## Projects

**Personal Portfolio Website** | *React, Node.js, CSS, Git* — Dec. 2023 – Present

- Developed a personal portfolio website using React, React Router, and Node.js
- Implemented a MongoDB Atlas-integrated backend with Express.js

**Drone Simulation of College Campus** | *C++, Docker* — Oct. 2024 – Jan. 2025

- Designed a drone simulation for a university campus in C++
- Implemented pathfinding algorithms for autonomous drone movement
- Used Docker for containerized deployment and testing

**AI Strategy Optimization for Reversi** | *Python, AI, Heuristic Algorithms* — Jan. 2024 – Present

- Conducted an in-depth analysis of AI algorithms in Othello, implementing various strategic approaches.
- Implemented advanced adversarial search techniques: Minimax, Alpha-Beta Pruning, and Monte Carlo Search.
- Evaluated computational tradeoffs between efficiency and accuracy in strategic decision making.

## Technical Skills

**Languages**: Java, Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS, OCaml
**Frameworks**: React, Node.js, JUnit, Express.js
**Developer Tools**: Git, Docker, Visual Studio, PyCharm, IntelliJ, Unix
**Libraries**: pandas, NumPy, Matplotlib
**Methodologies: Agile**, Scrum, Waterfall, Spiral
**AI**: Cursor, v0