Braeden West

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Education

Bachelor of Science in Computer Science (Software Engineering) Aug. 2024 – May 2026
Arizona State University *Tempe, AZ*

Associate of Arts in Computer Information Systems Aug. 2023 – Aug. 2024
Grand Rapids Community College *Grand Rapids, MI*

Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Frontend Development, Backend Development, Databases & Storage, Computer & Network Security, Cloud Computing

Experience

ASU/NASA Marston Exploration Theater Sep. 2025 – Present
Technical Lead *Tempe, AZ*

- Led development of immersive 3D educational content for the NASA Psyche mission, improving scientific accessibility for public and academic audiences through visual experiences.
- Defined project scope, milestones, and team responsibilities, ensuring alignment with sponsor requirements.
- Collaborated with NASA and university researchers to validate scientific accuracy and incorporate domain expertise into educational content.

Packsyncr Nov. 2025 – Present
Full Stack Developer *Tempe, AZ*

- Designed and implemented a full-stack service for collaborative Minecraft resource packs, including a website, backend APIs, cloud storage, and a desktop app, enabling users to create and manage shared resources seamlessly.
- Engineered a secure authentication and authorization system using Microsoft OAuth, JWTs, and refresh tokens, enforcing fine-grained permissions for pack access and collaborator roles, ensuring data integrity and user privacy.
- Solely designed and implemented the service architecture, database schema, API endpoints, and automatic synchronization across users' systems.

Next Level DFS Dec. 2025 – Jan. 2026
Web Developer *Rockford, MI*

- Improved website performance and responsiveness by refactoring front-end architecture and optimizing components, resulting in faster load times and smoother user interactions across devices.
- Enhance maintainability and scalability by reorganizing code into modular, reusable components.

Projects

Convolutional Neural Network | *Java, Git*

- Built a convolutional neural network (CNN) in Java by manually implementing convolutional, pooling, and fully connected layers, without using existing machine learning frameworks.
- Trained and evaluated models on the MNIST and Google Quick Draw datasets, demonstrating end-to-end data processing, training, and inference workflows.
- Achieved ∼99% classification accuracy on unseen test data by training the CNN on a labeled dataset and validating generalization using a held-out test set.

Deterministic Finite Automaton Parser | *C++, Git*

- Developed a deterministic finite automaton (DFA) parser to process formal language definitions and validate input sequences.
- Designed and implemented a custom lexer to tokenize DFA specifications, enabling reliable parsing and analysis.

Project Spyn | *MATLAB*

- Designed and built an autonomous maze-navigating vehicle, integrating hardware sensors with control logic.
- Implemented a 360-degree rotating sensor system to detect obstacles, guide pathfinding decisions, and map the maze layout.

Technical Skills

Programming Languages:: Java, Kotlin, C#, C, C++, Swift, HTML, CSS, XML, JavaScript, SQL
Development Tools: IntelliJ, VSCode, Eclipse, Xcode, Git, Github, Cloudflare, Azure, Unity, Blender, React, Node.js