

## EDUCATION

### Iowa State University

Bachelor of Science in Computer Science, Minor in Applied AI

Expected Graduation: **May 2026**

Ames, IA

## EXPERIENCE

### Software Engineering Intern

Marshalltown Company

05/2025 - Current

Marshalltown, IA

- Incoming Fullstack Software Engineering Intern at Marshalltown Company!

### Undergraduate AI Researcher

Software Analytics and Pervasive Parallelism Lab (SwAPP)

08/2024 - 01/2025

Ames, IA

- Developed custom tools using the Tree-sitter parsing library, NumPy, and Python APIs to generate auto-labeled datasets for model analysis, streamlining the labeling process by 60%
- Partnered with a Master's student and two fellow undergraduates to design and optimize a SciPy data-processing pipeline for over 100,000 data points—cutting runtime by 40% and improving clustering accuracy

### Software Research Intern

The DePaul DICE Lab

05/2024 - 08/2024

Chicago, IL

- Collaborated with a Master's students and supervising CS professor at DePaul University to design and implement a Python and NumPy data-processing pipeline for container workflow logs, cutting redundancy by 30% and enabling more reliable analytics for exception detection.
- Automated end-to-end log cleansing and transformation with custom Python scripts and Git-based CI pipelines, slashing exception-detection time by 40% and boosting resource-utilization efficiency
- Engineered and deployed a Docker container interface on an Ubuntu VM—integrating Content-Defined Merkle Trees (CDMT) via Python and Git—to boost operational efficiency by 35%

## PROJECTS

### convertfile.me - Founder | JavaScript, Node.js, Express.js, HTML/CSS, AWS EC2/S3/RDS, Git

02/2025 - Current

- Developed a full-stack file-conversion platform using a JavaScript/HTML/CSS front-end and Node.js/Express back-end to automate user file uploads and conversions and deliver average conversion times under 2 seconds
- Built back-end pipelines with Multer for multi-file uploads, Sharp for efficient image conversions, and PDF-Lib for PDF merges to guarantee precise transformations and raise throughput to 200 files/minute with error rates under 1%
- Deployed AWS infrastructure—EC2 for hosting, S3 for file storage, and RDS (PostgreSQL) for metadata to handle variable traffic spikes and maintain 99.9% uptime

### Dungeon Monsters - Linux Game | C, C++, Ncurses, Git, Linux

04/2025

- Engineered a high-performance C/C++ roguelike with procedurally generated multi-level maps, dynamic room/corridor placement, and a Ncurses-based UI to deliver a terminal-style gameplay experience
- Designed and implemented a modular AI engine integrating Dijkstra's pathfinding, telepathic sensing, tunneling logic, and an event-driven priority queue to drive dynamic, unpredictable monster encounters

### CyLife - Android Application | Java, Spring Boot, MySQL, Git, WebSockets, Maven, CI/CD

12/2024

- Led the CyLife Android backend by leveraging Java, Spring Boot, and MySQL, designing and optimizing relational database structures for scalability while integrating CI/CD pipelines to streamline testing, deployment, and code quality assurance
- Integrated real-time chat and notifications using WebSockets, enabling seamless communication and enhancing user experience while ensuring smooth backend-frontend synchronization

## SKILLS

**Languages:** C#, Java, Python, SQL, C, C++, JavaScript, HTML/CSS

**Frameworks/Libraries:** Express.js, Node.js, React.js, WebSockets, NumPy, SciPy, Ncurses

**Developer Tools:** AWS EC2/S3/RDS, Docker, Git, Maven, PostgreSQL, Postman, RESTful API, Spring Boot, Unix/Linux, CI/CD