

## PROFESSIONAL SUMMARY

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Detail-oriented Computer Science student with strong analytical skills and Python expertise. Demonstrated high learning ability through project planning and engineering solutions that increase team efficiency, with proven collaboration and teamwork abilities in fast-paced environments.

## EDUCATION

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**Michigan State University - College of Engineering** — East Lansing, MI — GPA: 4.0

**B.S. Computer Science, AI/ML Concentration** — Aug 2023 - May 2027

Relevant Coursework: Data Structures and Algorithms, Web Application Development, Operating systems, Biometrics and Pattern Recognition, Cloud Management

## PROFESSIONAL EXPERIENCE

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**Backend Development Intern, MSU Facility for Rare Isotope Beams** Aug 2025 - present

Leading project planning and implementation of BMEX migration to Django REST API with PostgreSQL, Redis, and Docker, improving system efficiency through automation and modular architecture. Developing scalable solutions for data analysis and job orchestration using Python and Kubernetes for enhanced project delivery.(In Progress)

**Software Engineering Intern, KNEO Automation** May 2024 - Aug 2024

Developed Python-based automation pipeline using YOLOv8 and OpenCV to extract measurements from industrial blueprints, improving data analysis efficiency through automated Excel reporting. Applied machine learning and computer vision techniques to enhance accuracy and streamline project deliverables.

**Teaching Assistant - Python (CSE 102), Michigan State University** Aug 2024 - May 2025

Enhanced the Python course by leading hands-on coding labs, simplifying complex programming concepts, and creating interactive learning materials, contributing to a 15% increase in the student pass rate and improved overall engagement and course outcomes.

## PROJECTS

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**SquadRunna:** Built SquadRunna, a Docker-containerized social fitness platform with React Native frontend and Django REST API backend, featuring JWT auth, real-time leaderboards, and Celery, Redis-based async processing.

**Sensor Anomaly Detection:** Built Python-based data analysis app with React/Django to automate anomaly detection in sensor data, improving efficiency through automated visualization and Docker deployment.

**Crop Yield Prediction:** Developed a full-stack machine-learning pipeline for crop-yield forecasting using historical weather and soil data; implemented end-to-end data preprocessing, model training (linear regression, MAE/RMSE/R<sup>2</sup> evaluation), and served results via a Flask web app with interactive Plotly visualizations and Bootstrap-based UI.

## SKILLS

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**Programming & Frameworks:** Proficient in Python, JavaScript/TypeScript, Django REST Framework, React Native, React.js, Flask, Tailwind CSS for building scalable full-stack and mobile applications.

**DevOps & Databases:** Experienced with Docker & Docker Compose, Celery/Redis, PostgreSQL/MySQL, Git, GitHub CI/CD.