

# Cade Agostinelli

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## EDUCATION

### Bachelor of Science in Computer Science

May 2026

Mississippi State University, Starkville, MS

GPA: 3.8

## WORK EXPERIENCE

### Hintjen, Starkville, MS

Jan 2024 – Apr 2024

#### Software Engineer Intern

- Collaborated with a team and led the development of over 50% of the backend production code for an event social media app utilizing React, Django, and Node.js, resulting in a user-friendly interface with efficient backend integration
- Containerized applications with Docker to ensure consistent environments, and improved scalability through CI/CD processes, including pull requests and resolving merge conflicts
- Implemented notification and phone verification functionality of the app using Twilio API and developed REST APIs for seamless communication between frontend and backend services
- Developed unit tests for Hintjen's extensive systems and clients, achieving 90% average code coverage
- Improved Hintjen's asynchronous client by developing over 60+ unit tests with Python while collaborating with senior software engineers to conduct code reviews and reimplement the client's infrastructure

### Computer Explorers, Jackson, MS

May 2022 - Aug 2022

#### Stem Teacher

- Mentored and trained young minds from the Jackson metropolitan area in essential technical skills
- Helped equip over 100+ students with a solid foundation to excel in STEM fields in the future

## TECHNICAL SKILLS

**Languages:** Python, C++, C, SQL, HTML/CSS, Javascript

**Developer Tools:** VS Code, IntelliJ, Clion, Git, Linux/Unix, Ubuntu, .NET

**Technologies/Frameworks:** Docker, Pytorch, NoSQL, REST APIs, MongoDB, Agile, Flask, React, Node.js, Django, Pandas

## PROJECTS

### FinanceGuru Website | <https://github.com/cadeagostinelli/Finance-guru>

- Developed a full-stack financial analysis website, leveraging technologies like SQL, Flask, and pandas to analyze and present financial data, emphasizing proper data management
- Utilized Flask and data visualization tools to connect components and organize data

### Diabetes Risk Prediction Model | [https://github.com/cadeagostinelli/ML\\_Diabetes](https://github.com/cadeagostinelli/ML_Diabetes)

- Built a machine learning model using Python to predict diabetes risk based on clinical and demographic data, improving prediction accuracy to ~75% through feature engineering and optimization.
- Employed libraries such as Scikit-learn and Pandas for data preprocessing, model training, and evaluation, achieving a high accuracy rate.

### Generative Adversarial Network (GAN) for X-ray Images | [https://github.com/cadeagostinelli/AI\\_GAN](https://github.com/cadeagostinelli/AI_GAN)

- Designed and implemented a GAN using Pytorch to generate synthetic X-ray images of pneumothorax
- Optimized generator and discriminator architectures to improve quality of generated images

### Drowsy Driving Engineering Design | <https://bit.ly/drow-drive-port>

- Created a product addressing design specifications and problems culminating in an 80-page portfolio
- Worked on and coded the Arduino portion of project that handled the mechanics in C++
- Collaborated with senior industry engineers for project evaluation and feedback of our full-fledged prototype

## RELEVANT ACADEMIC EXPERIENCE

### Mississippi State University, Starkville, MS

**Coursework** | Machine Learning, AI Robotics, Artificial Intelligence, Operating Systems, Algorithms, Systems Programming, Data Structures, Methods & Tools In Software Development, Computer Organization, Intermediate Programming, Linear Algebra