# Cristian Vasu

# Software Engineer | AI/ML Researcher | Full-Stack Developer

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## **EDUCATION**

## **Bowling Green State University**

Bowling Green, OH

Master of Science in Computer Science - GPA: 3.75

Aug. 2024 - Dec. 2025

• Relevant Coursework: Algorithm Design, AI for Software Engineering, Network Architecture, Computer & Network Security, Secure Software Engineering, Big Data Analytics

## University of Mount Union

Alliance, OH

Bachelor of Science in Computer Science & Bachelor of Science in Financial Mathematics Aug. 2019 – May 2023

• Relevant Coursework: Software Engineering, Web & Mobile Development, Data Structures, Database Systems

## TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, SQL (Advanced) | Java, C, HTML/CSS, Bash (Proficient) Front-end: React, Angular, Tailwind CSS, Vite, Leaflet | Back-end: Node.js, Express, Flask, REST APIs

Databases & Cloud: MongoDB Atlas, PostgreSQL, AWS (S3, Lambda), Docker

AI/ML & Data Science: OpenAI API, Mistral AI, LangChain, RAG, pandas, NumPy, SciPy

# PROJECTS

## AI Pull Request Research | Python, OpenAI API, GitHub API

Master's Thesis – 2025

- Engineering a GitHub application that uses the OpenAI API to automatically generate PR Descriptions
- Architecting a unified ingestion pipeline that combines issue links, code diffs, commit messages, and file metadata into an agentic LLM-driven RAG framework
- Applying input filtering to increase efficiency and improve quality of generations

Travel Health Advisor | React, Mistral AI, MongoDB, Tailwind, Vite

BGSUHacks - 2025

- Architected a travel health platform that provides tailored medical guidance to users via an AI-powered advisor;
  Awarded 1st place in AI/ML track
- Dynamically retrieved disease data based on user input from a **MongoDB Atlas** database initiated by user interaction with a Leaflet-based interactive map
- The Mistral AI integrated chatbot utilized user health data to provide personalized feedback presented through a responsive interface that delivers an intuitive experience

RocketGrades LMS | Angular, TailwindCSS, Node.js, AWS S3, Auth0, Mistral AI, MongoDB RocketHacks - 2025

- Created a web-based Learning Management System that autogrades using LangChain with Mistral AI Awarded 1st place in Auth0 track
- Implemented Auth0 for secure, role-based access control, protecting data privacy for users
- Integrated AWS S3 and MongoDB Atlas for scalable file storage and real-time data retrieval

### Professional Experience

# Software Engineering Intern

Jun. 2020 – Aug. 2020

Alliance for Children & Families

Alliance, OH

- Architected a website that provided health and wellness information to a community of over 20,000 individuals
- Collaborated with team members to gather user feedback and make iterative improvements to the website's features and functionality
- Tested and debugged code to ensure functionality and performance met quality standards prior to deployment

### Real-Estate Technology Consultant

Jun. 2018 – Present

Horizon Investments

Alliance, OH

- Developed Excel dashboards using VBA macros to track renovation costs and projected ROI for properties
- Performed demolition, cleaning, landscaping, and installations to fully renovate properties

# **Mathematics and Statistics Tutor**

Dec. 2024 - Present

BGSU Learning Commons

Bowling Green, OH

- · Assisted students with math and statistics concepts, fostering problem-solving and independent learning skills
- Led 8-10 weekly sessions across calculus, algebra, and statistics, helping tutees lift exam scores 1 letter grade on average