# PRAMISH PANDEY

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○ github.com/pramishpy ↗

## Education

**The University of Southern Mississippi** *Jan 2024 – Present*
*Bachelor's of Science in Computer Science*

- **GPA:** 4.00
- **Relevant Coursework:** Computer Systems, Computer Networks, Algorithms, Web Development, Cloud Computing, Data Center Networks, Machine Learning, Cybersecurity, Data Structures and Algorithms, Object-Oriented Programming, Database Management Systems, Secure Software Development.

## Experience

**Full Stack Software Development Engineer** *September 2025 – Present*
*School of Polymer Science & Engineering, The University of Southern Mississippi*

- Engineering a full-stack research platform with Django, Django REST Framework, PostgreSQL (JSONField), React (Vite), Recharts, Plotly.js, Pillow, NumPy, pandas, and openpyxl, automating ingestion and data science analysis for hundreds of polymer samples and thousands of AFM/GISAXS images, targeting real-time multi-metric comparisons and an 97% reduction in manual data entry.
- Designing 10+ REST API endpoints and interactive React dashboards, leveraging advanced image and metadata handling with Pillow, NumPy, and pandas, implementing robust bulk upload workflows, and applying best practices in component architecture, data visualization, and error handling to deliver research-focused user experiences.

**Learning Assistant** *August 2025 – Present*
*Center for Faculty Development, The University of Southern Mississippi*

- Mentoring over 150 undergraduate students, improving their debugging efficiency and increasing project completion rates by 30%, while promoting best practices in Python, Java, and software development.
- Facilitating 40+ collaborative coding sessions on advanced topics such as object-oriented design and data structures, helping students achieve higher grades and strengthening foundational algorithmic problem-solving skills.

## Projects

**PolyVision: Cross-Platform App for Polymer Image Analysis & Visualization** *GitHub ↗*

- Engineering a cross-platform desktop application in modern C++ and Qt 6 for polymer image analysis and visualization, supporting advanced segmentation, synthetic image generation, and publication-ready chart exports for microscopy workflows.
- Architecting modular analysis pipelines with batch processing, plugin-ready extensibility, and interactive GUI built on MVC/MVVM design, leveraging CMake, Qt Charts/QCustomPlot, OpenCV, and integrated automated testing for robust and portable scientific software.

**Mentally: Web App for Mental Health Education Using Augmented Reality** *website ↗*

- Designed, built and deployed an AWS hosted web application using Flask, A-Frame, AR.js, and Jinja2, delivering marker-based augmented reality (AR) experiences, interactive simulations, and empathy building modules for 100 to 300 unique users in a multiweek pilot.
- Developed immersive AR journeys and educational modules that increased myth-busting quiz scores by 25 to 35%, reduced stigmatizing beliefs by up to 25%, and achieved 40% AR tour completion and 3 to 5 minute average engagement sessions, measured with in-app analytics and pre/post assessments.

## Skills

Python, C++ , Java, JavaScript , Django , Flask , React , Qt 6 (*Core, Widgets, Charts*), OpenCV, Node.js, Angular, ASP.NET, PostgreSQL, SQLite, **NumPy**, pandas, Pillow, openpyxl, Plotly.js, Recharts, **PyTorch**, MATLAB, A-Frame, AR.js, AWS, CMake, GitHub Actions (CI/CD), WSGI, Qt Test (QTest), GoogleTest, VS Code, Qt Creator, Microsoft Office Suite

## Honors & Awards

**President's List** (Spring 2024, Fall 2024, Spring 2025)