

# Aniket Patel

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## EDUCATION

### ASHLAND UNIVERSITY

*Bachelor of Science*

Major: Computer Science

Minors: Mathematics, Management Information Systems, Honors Program

GPA: 3.7/4.0

Ashland, OH  
Expected May 2026

## WORK EXPERIENCE

### Ashland University

*AI/ML Researcher*

Ashland, OH  
January 2024 - Present

- Led development of an AI-driven agricultural IoT system, improving crop selection by integrating real-time sensor data with a cross-platform React Native app and a Random Forest Classifier model.
- Architected an irrigation and disease detection module reducing water waste by 25% and achieving 98% disease detection accuracy with the EfficientNetB7 model.
- Authored two forthcoming research papers on regression models and hardware accelerators (CPU, GPU, TPU) for AI workloads.
- Presented two conference presentations on CNN digit recognition and plant disease detection at Ohio Academy of Science.

### Wilkes University

*Deep Learning Researcher*

Wilkes-Barre, PA  
June 2023 - August 2023

- Researched existing protein-protein interaction site prediction models (DeepPPISP, D-PPIsite) to identify areas for improvement.
- Engineered a novel prediction model that outperformed existing models by 15% in accuracy through a custom TensorFlow architecture.
- Optimized dataset quality, boosting model performance by 25% by implementing rigorous preprocessing pipelines like normalization, feature scaling, outlier removal and dimensionality reduction.

## PROJECTS

### ScreenGuard AI: *Python, ScreenPipe OCR, Gemini API, Flask, HTML, CSS, JavaScript*

- Designed a screen monitoring system, reducing inappropriate content exposure by 40% by integrating Gemini API with ScreenPipe tracking.
- Enhanced parental control efficiency by 25% through customizable alerts by developing a Flask-based backend and responsive frontend using HTML, CSS, and JavaScript.
- Achieved 99% accuracy in classifying screen content by implementing OCR and ML pipelines, improving monitoring precision.

### MeetMate: *ReactNative, Firestore, LLaMA 3.3, Whisper*

- Built a cross-platform meeting assistant app to automate summaries and task generation, improving meeting productivity by 30% using LLaMA 3.3 70B and Whisper.
- Delivered 100% real-time sync by designing a Firestore-based backend for seamless data storage and retrieval.

### Music Store Website: *JavaScript, HTML, CSS, MySQL, PHP*

- Developed an e-commerce platform for purchasing and managing music albums by integrating MySQL for secure transactions and PHP for inventory tracking.
- Improved user retention by 30% by designing a responsive HTML, CSS, and JavaScript frontend with real-time cart updates.
- Boosted backend uptime to 99% by streamlining SQL queries and PHP logic, cutting downtime by 15%.

### Google Keep Clone: *HTML, CSS, JavaScript, Node.js, LLaMA 3.2, Tesseract OCR*

- Created a Google Keep clone app increasing user productivity by 40% with AI-based summarization, OCR, Image generation and image-to-text features.
- Reduced user workload by 50% by deploying LLaMA 3.2, Flux Schnell, Tesseract OCR for summarization, text-to-image and reminder extraction.
- Increased accessibility by building a responsive frontend with HTML, CSS, and JavaScript along with Node.js backend.

## TECHNICAL SKILLS

**Programming Languages:** Python, Java, C++, Swift, PHP, JavaScript, TypeScript, Kotlin, SQL (MySQL, PostgreSQL), MongoDB

**Framework & Libraries:** React, Next.js, Vue.js, Tailwind CSS, Node.js, Express.js, Spring Boot, PyTorch, TensorFlow, Scikit-Learn, Pandas, NumPy, Matplotlib, Seaborn, SciPy

**Web & App Development:** HTML, CSS, JavaScript, TypeScript, XML, RESTful APIs, Angular, Android (Kotlin & Java), iOS (Swift)

**Cloud & DevOps:** AWS, Google Cloud, Microsoft Azure, Flask, FastAPI, Kubernetes, Docker

**Version Control & Tools:** Git, GitHub, Jupyter Notebooks, Visual Studio Code, Android Studio, PowerBI, Tableau