

Pratham Patel

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EDUCATION

Gannon University

Bachelor of Science in Computer Science

Erie, PA

Expected May 2028

Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Database Systems, Software Engineering, Discrete Mathematics, Linear Algebra

TECHNICAL SKILLS

- **Languages:** Python, JavaScript/TypeScript, Java, C++, SQL, HTML/CSS
- **Frameworks & Libraries:** React, Next.js, Node.js, FastAPI, Express.js, PyTorch, TensorFlow, Scikit-learn
- **Databases & Storage:** PostgreSQL, MongoDB, Redis, SQLite, Prisma ORM
- **Tools & Technologies:** Git, Docker, AWS, GCP, Azure, REST APIs, CI/CD, Linux, Celery
- **Specializations:** Full-Stack Development, System Design, Machine Learning, Cybersecurity, DevOps

EXPERIENCE

AI Research Intern

Feb 2025 - Present *Dhirubhai Ambani Institute of Information and Communication Technology*
Gandhinagar, India

- Engineered scalable ML pipeline using Python and Docker, improving model accuracy by 20% and reducing evaluation time by 40%
- Designed and implemented containerized microservices architecture for reproducible research workflows
- Collaborated with distributed research team using Git and agile methodologies to deliver production-ready software solutions

Tech Evangelist

Feb 2025 - Present *Gannon University*

Erie, PA

- Built and deployed full-stack Python web application with computer vision capabilities, serving 100+ daily users
- Integrated custom REST APIs into existing systems, increasing operational efficiency by 20%
- Implemented machine learning models and data pipelines following privacy compliance and security best practices

CIS Lab Technician

Sep 2024 - Present *Gannon University*

Erie, PA

- Provided technical support for 50+ daily users, reducing average issue resolution time by 30%
- Maintained 95% lab uptime through proactive system monitoring and troubleshooting
- Streamlined lab operations and implemented feedback systems, improving user satisfaction by 25%


PROJECTS

DELICIAE - Full-Stack E-commerce Platform

 [GitHub](#) *JavaScript, Next.js, React, Prisma, PostgreSQL, Sanity.io*

- Architected and developed secure e-commerce web application with product catalog, shopping cart, and payment integration
- Implemented server-side rendering with Next.js and efficient database operations using Prisma ORM
- Built responsive UI components and integrated third-party APIs for seamless user experience

InboxIQ - AI-Powered Email Management System

 [GitHub](#) *Python, FastAPI, Docker, Celery, Redis, MongoDB, Scikit-learn*

- Developed scalable backend API serving 200+ users, reducing email response times by 30%
- Implemented asynchronous task processing with Celery and Redis for high-availability system architecture
- Built ML classification models for automated email sorting and sentiment analysis with 95% accuracy
- Integrated Gmail API with secure authentication and data encryption following industry security standards

SignSpeak - Real-Time Translation System

 [GitHub](#) *Python, PyTorch, MediaPipe, LSTM, Computer Vision, SQLite*

- Engineered real-time data processing pipeline achieving 90%+ accuracy on 1,000-word vocabulary dataset
- Optimized deep learning model deployment for <200ms latency on standard hardware
- Built custom NLP module with sequence-to-sequence architecture for grammatically correct output generation
- Designed efficient database schema and implemented caching mechanisms for improved performance

Hybrid Android Malware Detection System

Python, Scikit-learn, Static/Dynamic Analysis, Android Security

- Developed robust two-stage detection framework processing 1,000+ Android APKs with 97% accuracy
- Implemented feature engineering pipeline combining static analysis and runtime behavior monitoring
- Built machine learning ensemble models using Random Forest classifiers for layered threat assessment
- Created automated testing framework with comprehensive performance metrics and model validation

ACHIEVEMENTS & LEADERSHIP

1st Place Winner - BSidesROC Capture the Flag Competition

Rochester, NY, 2024

- Led cybersecurity team to victory against 50+ competitors in MetaCTF competition
- Solved complex challenges in binary exploitation, web security, cryptography, and reverse engineering
- Demonstrated strong problem-solving skills and ability to work effectively under pressure in team environment

Founder & President - Gannon University Programming Club

Jan 2025 - Present

- Founded university's first programming organization, growing membership to 50+ students
- Organized technical workshops, hackathons, and coding competitions to foster software development skills
- Established partnerships with faculty and local tech companies for guest lectures and mentorship programs

President - Gannon Badminton Club

Aug 2024 - Present

- Led club operations, organizing tournaments with 50+ participants and managing club resources
- Increased membership by 30% through strategic outreach and inclusive community building initiatives

ADDITIONAL INFORMATION

- **Certifications:** Pursuing AWS Cloud Practitioner, Google Cloud Associate
- **Open Source:** Active contributor to open-source projects with 10+ repositories on GitHub
- **Availability:** Seeking Summer 2026 Software Engineering Internship opportunities