Priyansh Patel

NYC Metropolitan Area

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EDUCATION

New Jersey Institute of Technology | *Albert Dorman Honors College*   Newark, NJ
Bachelor of Science in Computer Science, Minor in Applied Mathematics   May 2026
Relevant Coursework: OOP and Data Structures in Java, Machine Learning, Computer System in Assembly, Networks, Cybersecurity, Operating Systems, Compilers, Database Management, Artificial Intelligence

EXPERIENCE

Bank of America | *Python, SQL, Oracle Cloud, Automation, Distributed Systems*   June 2025 – Aug 2025
Software Engineering Intern`
- Reduced regulatory report generation time by 87% (2 hours to 15 minutes) by building an end-to-end data automation platform using Python, SQLAlchemy, Oracle Database, and Flask REST APIs for Liquidity Risk workflows.
- Engineered auto-scaling Flask microservices from scratch enabling 50 parallel workflow executions with 60% faster queue processing through internal job handler integration.
- Cut storage footprint by 40% by implementing compression protocols for JSON schemas and regulatory reports.

United Parcel Service | *Azure, C#, .NET, Search Engine, ETL Pipeline*   June 2024 – Aug 2024
Software Engineering Intern
- Migrated production search ASP.NET microservice to Azure AI Search from self-hosted Elasticsearch, cutting infrastructure costs by 20% and eliminating all VM-related service interruptions.
- Accelerated 100 GB daily data processing by 15% by redesigning ETL pipeline with parallel data ingestion and optimized indexing strategies for Azure AI Search.
- Improved API query response times by 20% by refactoring search service endpoints in C# for Azure integration.

New Jersey Institute of Technology | *Python, PyTorch, Neural Networks, Github Actions*   Sept 2025 – Present
Artificial Intelligence Researcher
- Investigating computational circuits learned by an RNN for algorithmic tasks, using Fourier analysis and SVD to demonstrate the model discovers a sparse, low-rank solution.
- Validating the model's sparse computational structure via targeted SVD and Fourier ablation studies in PyTorch that isolated critical weight components.

PROJECTS

Glimpse | *Go, PostgreSQL, MongoDB, REST API, Tooling*   July 2025 – Aug 2025
- Built high-performance Go observability tool enabling automatic function tracing and error logging across monolithic and distributed system architectures with low code instrumentation.
- Engineered daemon processing model with only 200 μs overhead, offloading logging for negligible runtime impact.

AI Scheduling Assistant | *React, Typescript, OpenAI, Flask, Firebase*   Dec 2024 – Jan 2025
- Built AI scheduling assistant using OpenAI to parse natural language requests and automate Google Calendar.
- Developed a secure full-stack solution with Flask REST API, Auth0 auth, and Google Calendar API integration.

Sem-Builder | *Next.js, Typescript, Supabase, Google Cloud, SQL, REST API*   Oct 2024 – Nov 2024
- Launched Next.js/React platform with PostgreSQL backend for course planning and conflict detection, scaling to 200+ students across 2 universities with real-time schedule validation.
- Designed scalable backend achieving <50 ms API latency using GCP architecture, Supabase indexing, and Puppeteer.

TECHNICAL SKILLS

- **Languages:** Java, Python, JavaScript, TypeScript, Go, SQL, C++, C#, Bash
- **Frameworks & Libraries:** React.js, Next.js, Node.js, Django, Flask, Spring Boot, .NET, JUnit, Jest, Selenium, LangChain
- **Tools:** AWS, Azure, Google Cloud, OpenAI, MongoDB, Redis, PostgreSQL, Terraform, Postman, Git, VSCode, Docker
- **Technologies:** Distributed Systems, OpenMPI, RAG, Vector Embeddings, Semantic Search, REST APIs, CI/CD