

# Shreyansh Nayak

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## Work Experience

**Backend Developer**, Klaar Digital Solutions, *AI-powered employee performance management platform* Jan – Sep 2024

- **GenAI Deployment:** Integrated GenAI chatbot functionalities using LangChain and natural language processing models, connecting with Salesforce, Jira, and Slack to automate workflows and reduce task delays by 25%
- **Microservices Resilience:** Leveraged Apache Kafka for efficient inter-service communication, optimizing message passing and streamlining workflows, resulting in a 45% reduction in latency
- **Code Quality & CI/CD Maintenance:** Conducted extensive code refactoring and quality enhancements for Django-backed systems deployed on Kubernetes, improving CI/CD pipelines with Sonar for automated code quality checks, accelerating development cycles

**DevOps Intern**, Indore Pack Pvt. Ltd.

May–July 2023

- Established self-hosted development, API, and email servers on Cloudflare Zero Trust with SSO, enhancing system reliability
- Boosted SEO & improved rendering by using optimization strategies for images, assets & documents, resulting in a 45% reduced payload, wielding edge-deployed frontend

## Personal Projects

**Dynamic Time Tracking Application Suite**

🐙 [github.com/149segolte/TimelyGator](https://github.com/149segolte/TimelyGator)

- Implemented Observation tooling for Linux/X11, Windows/WinAPI, and macOS/JXA giving cross-platform insights.
- Designed a performant backend in Go, building REST APIs with Gorilla Mux, managing data persistence leveraging GORM and SQLite, and integrating Cobra CLI.
- Built a Manifest V3 Chrome Extension for detailed browsing activity capture, utilizing message passing and 'chrome.storage.sync' for data handling and persistence.

**Adaptive Neuron Simulation with Genetic Algorithms**

🌐 [neuron.149segolte.dev](https://neuron.149segolte.dev)

- Developed a sophisticated genetic algorithm in Rust and Web-Assembly to model neuron survival behaviors through mutation and crossover strategies, achieving 95% validation in predicting neuron adaptation
- Created an interactive visualization on top of OpenGL that dynamically illustrates neural adaptation and survival strategies, enhancing understanding of genetic algorithms and neural networks

**Machine Learning Playground**

🌐 [mlp.149segolte.dev](https://mlp.149segolte.dev)

- Engineered an automation tool in Rust and Python to streamline ML model training and comparison, reducing development setup time by 70%, and enabling rapid prototyping and experimentation
- Built an interactive web app by utilizing Svelte and Node.js, integrating Protobufs, gRPC, and Redis caching, which accelerated large dataset predictions by 40%, also retaining query history for future reference

## Skills

- **Programming:** Proficient in Rust, Golang, Python, C/C++ | Familiar with JavaScript/TypeScript, SQL
- **Technologies:** AI/ML (PyTorch, Scikit, Langchain); GPGPU (CUDA, Vulkan); DevOps (Docker, Terraform, GCP, AWS); Misc. (Tailscale, Svelte, Proxmox, CoreOS, Nix)

## Education

**Master of Science**, Major: Computer Science

Jan 2025 – Dec 2026

University of Florida, GPA: 4.0 out of 4.0, Top 1% in class

USA

- **Core Coursework:** Advanced Data Structures, Computer Networks, Database Systems, Software Engineering, Trustworthy Machine Learning, Distributed Operating Systems
- **Certificate program:** 1 of 4 students selected (from 400+) for a competitive 6-month program based on merit in USA

**Bachelor of Technology**, Major: Computer Science (Specialization: Artificial Intelligence)

Aug 2021 – May 2025

Jaypee University of Engineering and Technology, GPA: 9.4 out of 10.0

India

- **Core Coursework:** Operating Systems, Data Structures & Algorithms, Computer Networks, Object-Oriented Programming, Digital Systems & Microprocessors, Computer Organization & Architecture, Database Systems
- **Specialization:** Machine Learning, Artificial Neural Networks, Deep Learning, Soft Intelligence, Reinforcement Learning

## Certifications

**Advanced Natural Language Processing** (Ongoing)

MIT OpenCourseWare

**Deep Learning with Tensorflow** (2023)

IBM, IIT Bhubaneswar

**Machine Learning with Python** (2022)

FreeCodeCamp

**Javascript Algorithms and Data Structures** (2022)

FreeCodeCamp

## Interests

- Reading YA dystopian novels, exploring historical and scientific documentaries, engaging in sports (tennis, roller-skating, basketball), embedded programming (x86 assembly and bootloaders), and game development