Shreyansh Nayak

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Experience

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

Transformative 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

Web Development 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

Academic Projects & Research

Dynamic Time Tracking Application Suite - TimelyGator **Jan - May 2025**

- Implemented cross-platform Window Observation tooling for Linux, Windows, and macOS (using X11, Windows API, JXA)
- Designed a performant backend in Go, building REST APIs with Gorilla Mux, managing data persistence using 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 **May - July 2024**

- 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 using OpenGL that dynamically illustrates neural adaptation and survival strategies, enhancing understanding of genetic algorithms and neural networks

Machine Learning Playground **Oct – Dec 2023**

- Built 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
- Created an interactive web app using 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

University of Florida **Present – Till May 2025**

Special program, Bachelor of Technology, Computer Science *USA*

- 1 of 4 students selected (from 400+) for a competitive 6-month program based on merit, completing 8th semester in USA

Jaypee University of Engineering and Technology **2021 – Present**

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

CGPA: 9.4 out of 10.0, Top 1% in class

- **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