DHEERAAJ PINJALA

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EDUCATION

Northeastern University **Boston, Massachusetts**
Master of Science in Computer Science *Sep'25 - Present*
Courses: Programming Design Paradigm (Java), Web Development, Algorithms, Artificial Intelligence

Sri Sivasubramaniya Nadar College of Engineering (SSN) | GPA: 3.53/4.0 **Chennai, India**
Bachelor of Technology in Information Technology *Aug'19 - May'23*
Courses: Data Structures & Algorithms, Software Engineering, Distributed Computing, Machine Learning, Big Data Engineering, DBMS

TECHNICAL SKILLS

Languages: JavaScript, Python, C/C++, Java, Bash
Frameworks: React, Node.js, FastAPI, REST APIs
Cloud & DevOps: Kubernetes, Docker, Helm, OpenStack, Linux
AI/ML: RAG, LLMs, TensorFlow, ChromaDB, LangChain

EXPERIENCE

Hewlett Packard Enterprise (HPE) - Aruba Networking **Bengaluru, India**
Software Engineer *Sep'23 - Aug'25*

- Developed a network monitoring dashboard using React and FastAPI that displays real-time device health metrics, collaborating with Product and NOC teams to identify critical alerts for 50+ network operators
- Designed REST API endpoints using FastAPI to expose device health, performance metrics, and alert data to the monitoring dashboard
- Containerized backend monitoring services using Docker and Kubernetes and deployed across multiple OpenStack VMs, creating Helm charts for consistent deployments and reducing manual configuration steps
- Wrote Python analytics scripts to track network resource utilization across production environments, helping the infrastructure team identify optimization opportunities for capacity planning
- Built an LLM-based tool using RAG to search network logs and troubleshooting documentation, helping engineers quickly locate relevant information during incidents
- Facilitated technical workshops as part of HPE's ACE program, teaching React and Kubernetes fundamentals to 20+ new engineers and interns, improving team knowledge sharing

Hewlett Packard Enterprise (HPE) - Global Technology Center **Bengaluru, India**
Software Engineer Intern *Mar'23 - Aug'23*

- Supported senior engineers in NF deployment design reviews and later executed validation testing workflows independently
- Wrote Bash scripts to automate repetitive network configuration tasks, reducing manual setup steps for validation environments
- Developed unit and integration tests for backend APIs using pytest, improving test coverage and identifying bugs before deployment

SSN Coding Club **Chennai, India**
AI/ML Core Member *Jun'22 - Feb'23*

- Taught machine learning fundamentals to 50+ students through weekly workshops, covering supervised learning, neural networks, and practical applications using Python, scikit-learn, and TensorFlow
- Organized coding competitions and hackathons focused on AI/ML challenges, guiding students through problem-solving approaches

PROJECTS

Multi-Agent AI Researcher System | *Python, AgenticAI, RAG, FastAPI, React*

- Built an AI research assistant using multiple specialized agents to search academic databases via APIs, synthesize papers and generate literature reviews, while providing research-related contextual answers through a chat interface

Indian LegalGPT | *Python, ChromaDB, Groq, Mistral-7B, React, FastAPI*

- Created a bilingual (Hindi/English) legal information chatbot using RAG with ChromaDB for document retrieval and Groq/Mistral-7B for inference, supporting language toggle and accurate contextually relevant responses

KAMBAZ Application | *MongoDB, Express.js, React, Node.js*

- Built a NU Canvas-inspired lerning management system using MERN stack with Redux state management, RESTful APIs, JWT authentication, and MongoDB database design, supporting course creation, assignment workflows, and multi-role user management

Google Calendar | *Java, Java Swing, JUnit*

- Developed a calendar application in Java using MVC architecture with three interfaces (headless, interactive, Swing GUI), implementing Singleton and Command design patterns to support multiple calendars, timezone-aware scheduling, event copying, and Google Calendar-compatible exports

Credit Score Analysis using Machine Learning | *Python, Google Colab, TensorFlow, Seaborn*

- Implemented a multi-class credit risk model classifying high- and low-risk creditors, achieving 98.6% prediction accuracy by leveraging stacked ensemble techniques and addressing class imbalance with CTGAN, SMOTE, and bootstrapping