Nidarsh Nithyananda

Birmingham, Alabama • nidarsh.nithyananda@gmail.com • +12055875036 • +918494914899
https://nidarsh-portfolio.vercel.app/ • https://www.linkedin.com/in/nidarsh-n/ • https://github.com/NidarshN/

Summary

Software Engineer with **4+ years of experience** in **full-stack development**, **microservices**, and **AI/ML**. Skilled in **Python**, **Java**, **CI/CD**, and **cloud infrastructure**. Proven ability to **optimize systems**, **automate processes** for improved performance and **collaborate with cross-functional teams**. Eager to contribute my technical experience to drive innovation and support the company's vision, while continuously growing in the AI and tech space.

Skills

Python | Java | C++ | SQL | Javascript | Numpy | Pandas | Scikit-Learn | Keras | Tensorflow | Pytorch | Matplotlib | Tableau | PowerBI | Jira | Generative AI (GenAI) | Large Language Modelling (LLM) | Computer Vision | Natural Language Processing (NLP)| HTML | CSS | Tailwind CSS | Node JS | Spring Boot | React | Next.js | Flask | FastAPI | MongoDB | MySQL | Oracle 11g | PostgreSQL | AWS (IAM | EC2 | Lambda | RDS | SES | SNS) | Docker | Jenkins | Git | Communication | Teamwork | Problem-solving | Adaptability | Time Management | Attention to Detail | Collaboration | Creativity | Leadership

Experience

Thaniya Technologies Mangaluru, India
Software Engineer - AI/ML (Freelance) Jul 2022 – Present

- Developed **AI-powered applications**, including a **computer vision-based disease detection system**, improving crop health monitoring by **20%**.
- Engineered a **Python-based RPG game**, achieving a textbf95% customer satisfaction rate.
- Enhanced development efficiency by **15%** using agile methodologies and robust DevOps pipelines.

Tech Mahindra Pune, India
Software Engineer Dec 2021 – Jun 2022

- Designed and implemented **microservices and scalable APIs**, reducing security vulnerabilities by **30%**.
- Coordinated the Kubernetes migration, optimizing **continuous integration and deployment (CI/CD)**.
- Developed key components of an **online ordering system**, reducing **checkout time by 10%**.

IBM Bengaluru, India
Application Programmer (Java Full Stack) Aug 2019 – Dec 2020

- Developed **Spring Boot microservices** and **React-based front-end components**, enhancing system response time by **20%**.
- Automated **log fetching** and **root cause analysis using Python**, saving **35 hours of manual work weekly**.
- Improved Agile development and **CI/CD practices**, reducing time-to-market for new features by **10%**.

Sahyadri College of Engineering & Management Mangaluru, India
Research Assistant Aug 2018 – May 2019

- Researched **EEG signal classification**, **achieving 92% accuracy** in detecting alcoholism using AI models.
- Developed **data preprocessing scripts**, reducing **manual effort by 70%**.
- Published research findings in **Springer Singapore (AISC, Volume 1133)** and presented at AIDE-19 Conference.

Education

University of Alabama at Birmingham Birmingham, Alabama
Master of Science, Computer Science GPA 3.7
Relevant Coursework: Machine Learning, Natural Language Processing, Advance Algorithms, Database Systems, Advance Object Oriented Programming with C++, Matrix Algorithms for Data Science, Deep Learning, Cloud Computing

Sahyadri College of Engineering and Management Mangaluru, India
Bachelor of Engineering, Computer Science and Engineering GPA 7.32
Relevant Coursework: Data Structures and Applications, Software Engineering, Design and Analysis of Algorithms, Database Management Systems, Artificial Intelligence, Computer Graphics and Visualization, Unix and Shell Programming, Big Data Analytics
Activities: Mentored budding developers during Hactober Fest 2018 and Cognit'19 2019 Hackathons conducted at Sahyadri College of Engineering and Management, Mangaluru.

Publications

Exploring the Performance of EEG Signal Classifiers for Alcoholism Aug 2020
Advances in Artificial Intelligence and Data Engineering, Advances in Intelligent Systems and Computing, vol 1133. Springer, Singapore. https://doi.org/10.1007/978-981-15-3514-7_12

Certificates

Generative AI Fundamentals, Google Cloud Skills Boost, Google Jun 2023
AWS Certified Cloud Practitioner, AWS, Amazon May 2023 - May 2026
Deep Learning Specialization, DeepLearning.ai and Coursera Apr 2020
Advanced Data Science with IBM, IBM and Coursera Sep 2019

Projects

Local RAG for PDFs using Ollama Feb 2025
Tech Stack: Python, Ollama, ChromaDB, uv
Github Repo: https://github.com/NidarshN/local_rag_ollama

A command-line tool that enhances PDF interaction by leveraging local AI-powered responses and efficient document search.

- Developed an **AI-powered CLI tool** to index PDFs for quick and context-aware document interaction.
- Implemented **local retrieval-augmented generation (RAG)** using ChromaDB for fast and efficient document searches.
- Utilized uv for **efficient dependency management** and easier project setup.

SimplyShare - Cloud based file sharing Aug 2024
Tech Stack: Python, Flask, HTML, CSS, Javascript, AWS (EC2, Lambda, SES, RDS)
Github Repo: https://github.com/NidarshN/simplyShare

Engineered a user-friendly interface that allows users of all technical levels to effortlessly upload, download, and share files with customizable access controls.

- Implemented **scalable storage solutions** using **AWS S3 and AWS RDS**, enabling flexible storage options that adapt to the needs of solo users and large enterprises.
- Integrated **AWS SES** for **secure email notifications**, ensuring **real-time updates** for shared files and collaborative activities.
- Deployed the application on **AWS EC2**, ensuring **high availability** and **robust performance** across various devices.

Extractive and Abstractive Summarization on BBC News Corpus Aug 2022
Tech Stack: Python, Pytorch, NLTK, Transformers, Lightning AI, Git, Hugging Face
Github Repo: https://github.com/NidarshN/text-summarization-extractive-abstractive

A study on the performance of extractive, abstractive, and ensemble summarization techniques on the BBC News Corpus.

- Conducted **comprehensive exploratory data analysis (EDA)** on the BBC News Corpus, identifying key patterns and trends that informed subsequent **feature engineering decisions**.
- Implemented an **ensemble pipeline** for the execution flow, increasing the overall efficiency of the machine learning process by **10%**.
- Evaluated performance of **T5, PageRank,** and **BERT-based models** after retraining on the BBC News Corpus.

Exploring the Performance of EEG Signal Classifiers for Alcoholism May 2019
Tech Stack: Python, Scikit-learn, Numpy, Pandas, Flask, Git
Github Repo: https://github.com/NidarshN/EEG_Classifiers

A machine learning project evaluating EEG signals to classify alcoholic and non-alcoholic subjects.

- Developed **Python scripts** to efficiently structurize large EEG datasets and performed data preprocessing using techniques such as **normalization**, **noise reduction**, and **feature scaling**, ensuring **optimal data quality**.
- Implemented supervised learning classifiers including **Support Vector Machine**, **K-Nearest Neighbors**, **Naive Bayes**, and **Artificial Neural Networks** to **optimize predictive performance**.
- Achieved **60%** improvement in classification accuracy using **feature engineering** and **model tuning**.