Neel Gandhi

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Education

Dartmouth College — Hanover, NH ,USA

Master of Science in Computer Science , GPA - (4.0/4.0) — Aug 2022 - May 2024

Relevant Coursework **-** Artificial Intelligence, Object Oriented Programming, Database Management Systems, Machine Learning, Operating Systems, Computer Networks, Big data analytics, Data Structures and Algorithms,Deep Learning,Embedded Systems

Experience

Software Optimization and Development Intern — Aug 2023 - Mar 2024

Mercedes-Benz USA — Jacksonville, FL

- Achieved a 15% enhancement in product quality through the application of clustering algorithms (machine learning) on Azure. Developed an intelligent robotic process automation system leveraging computer vision, natural language processing, and generative AI.
- Consistently improved quality management efficiency by 25% while simultaneously reducing warranty costs by 15%. This accomplishment was realized through continuous development and enhancement of databases and automation bots, employing technologies such as VBA, Java, C++, Linux, and DevOps tools.
- Successfully maintained a 20% reduction in response time to quality issues by implementing and managing reporting tools using Python, Java, Qlik Sense, and Power Automate for global KPI monitoring, resulting in continuous advancements in overall quality control.

Data Analytics Intern — Jun 2023 - Aug 2023

DHMC — Lebanon, NH

- Developed data visualization pipelines for large-scale datasets, resulting in a 40% reduction in data analysis time. Utilized Kafka, Spark, Hadoop, and Hive alongside shell scripting, Docker, Kubernetes, and Singularity. Applied machine learning techniques on GPU (CUDA) to identify patterns and correlations, leading to the discovery of 20 novel genetic markers associated with a specific disease.
- Created a versatile software application using Groovy, Java, R, and Python for genomic data visualization. The application is projected to increase data analysis efficiency by 50% upon deployment.

Software Development Engineer — Jan 2022 - Jul 2022

Iolite Softwares — Laurel, MD

- Developed and implemented a large-scale commercial CRM system using HTML, CSS, Javascript, GraphQL,React, Angular,Python, and ASP.net core, resulting in the generation of 20,000+ leads and management of 10,000+ clients
- Utilized data analysis and Machine Learning to tailor campaigns and make decisions for customers based on RFM and Customer Lifetime Value metrics, resulting in increased customer satisfaction and dependency on the company or product.

Data Scientist Intern — Jun 2021 - Jul 2021

Bhaskaracharya Institute for Space Applications and Geoinformatics — Gandhinagar, Gujarat

- Developed a web application for sentiment analysis of 1 million+ Covid vaccination tweets, utilizing MLflow, Prefect, Flask, and Redis for efficient analysis, data processing, and visualization, resulting in the mobilization of rural and suburban populations for vaccination.

Data Science Researcher — Apr 2020 - Aug 2020

Indian Council of Medical Research - Centre for Innovation and Bio-Design — Sector 12, Chandigarh

- Developed high-accuracy malady prediction app for 1,000+ patients with machine learning. Integrated Kafka and Spark for scalable processing, improving model training on extensive medical datasets.
- Analyzed and experimented with various symptoms and factors to improve the scalability, readability, and repeatability of the developed workflow, utilizing Python, Flask, SQL and debugging skills to deliver a high-performing product.

Projects

MERN-Blog-Project: A Full-Stack Web App with DevOps Integration — Project Link

- Developed MERN(MongoDB, Express.js, React, Node.js)-Blog-Project a full-stack web application that enables users to create, edit, and delete blog posts easily, featuring a range of functionalities including authentication, login, registration, and logout.
- Integrated DevOps tools with the MERN-Blog-Project, including Jenkins, SonarQube, Docker, Kubernetes, Terraform, Grafana, and Prometheus, streamlining the development and deployment process for the application.

Big Data Analytics for Google Play Store — Project Link

- Evaluated the significance of key performance indicators (KPIs) for Google Play Store applications by examining multiple refined attributes with the aid of Tableau and PySpark.
- Implemented real-time queries through Kafka and conducted stream and batch processing using Spark for comprehensive data analysis.

AWS Video Share Website Serverless: Scalable Video Sharing Platform — Project Link

- Built a fully serverless video-sharing website on AWS with Auth0 and Google Firebase, ensuring scalability and cost-effectiveness.Optimized video processing by designing ELASTIC TRANSCODER Pipeline via Lambda, achieving 30% reduction in processing time.
- Developed Lambda functions for user profiles, secured by custom API Gateway authorizers. Enabled secure content uploads through Lambda functions and API Gateway. Employed Firebase Realtime Database for video storage and real-time updates, reducing latency by 40%.

Dartmouth College Student Spending Tracker — Project Link

- Developed a mobile app using React Native,Figma and Expo to help Dartmouth College students track and manage their spending when eating out at restaurants near the college.
- Utilized Node.js for backend functionalities and integrated data analysis features to analyze students' spending habits and provide personalized budgeting recommendations.

Research Publications

- "Leveraging towards Privacy-preserving using Federated Machine Learning for Healthcare Systems" (Best IEEE Paper Award) — Publication Link
- "sEMG Assisted Hand Gesture Recognition using Bi-Directional LSTM and Uni-Directional LSTM" (Best Springer Paper Award) — In Publication
- "CNN and Bidirectional GRU-Based Heartbeat Sound Classification Architecture for Elderly People" MDPI Mathematics Journal — Publication Link
- "Stacked Ensemble Learning Based Approach for Anomaly Detection in IoT Environment" IEEE ICORT — Publication Link
- "Explainable AI for Healthcare: A Study for Interpreting Diabetes Prediction" Springer ICMLBDA — Publication Link
- "A CNN-BiLSTM based Approach for Detection of SQL Injection Attacks" IEEE ICCIKE — Publication Link

Technical Skills

Languages: Python , Java , C , C++ , C# , SQL , Scala , Go , R , Matlab
Web Development: HTML , CSS , JavaScript ,ASP.NET Core ,Angular , Django,React , Typescript, Node.js , RESTful services and APIs
Machine Learning: TensorFlow , PyTorch , Flask , Hadoop , Tableau , OpenCV , Keras , NumPy , Scikit-Learn , Pandas , Matplotlib , Spark , AWS
Developer Tools: Github , Git , Shell Scripting, Excel , PowerPoint , MS Office , Linux , MongoDB , Docker , Jenkins , Kubernetes , Jira

Achievements

- University rank 1 in Technical competition conducted by Texas Instruments and National rank 45 in National Creativity Aptitude Test
- Michael Student Scholar(2022-23), Dartmouth Graduate Merit Scholar(24'), PCMC Scholarship(2016)