Nikhilesh Amarnath

+1 2144309740 | [Email](#) | [Linkedin](#) | [Github](#)

Summary

A Software Engineer with entry-level experience specializing in full-stack application development, machine learning, deep learning and React.js. Adept at identifying innovative solutions in collaboration with diverse teams using excellent communication skills and being a team player.

Education

The University of Texas at Dallas, Texas — Aug 2021 - Present
Masters of Science in Computer Science — *GPA: 3.71/4*

SRM Institute of Science and Technology, India — Aug 2016 - May 2020
Bachelor of Engineering, Electronics and Communication Engineering — *GPA: 7.81/10*

Experience

Intel Corporation, California, US | Software Engineer Intern — Aug 2022 - Dec 2022
- Utilized Intel Openvino toolkit to perform deep learning model inference, and validate features such as quantization, integer calibration, benchmarking, and optimization for CPU, GPU, and VPU.
- Worked on ONNXRT and WinML frameworks for validating AI/ML models
- Worked on developing and porting over Linux code to Windows for the HGS Application to run different classes of workloads for processor core validation.

Open-Source Integrators (OSI), California, US | Software Engineer Intern — June 2022 - Aug 2022
- Conducted Data Cleaning on the Project Management System Database to model the Project Burn Rate, and identified correlations between different variables. Leveraged Predictive Analysis and Prescriptive Analysis techniques to forecast potential outcomes and recommend optimal strategies.
- Facilitated the process by developing a user-friendly UI using React JS, which allowed Project Managers to input project details and seamlessly integrate the data with the Machine Learning model. Designed and implemented an intuitive Dashboard that presented the predicted Project Burn Rate in a visually compelling manner.
- Demonstrated my proficiency in deploying and managing large-scale ERP systems by creating and deploying multiple instances of Odoo application for 50+ charities using Kubernetes.

Publication

Computer Assisted Leukemia Detection — April 2020
- Implemented ALL (Acute Lymphoblastic Leukemia), AML(Acute Myeloid Leukemia) detection and counting of the blood cells from microscopic blood images by using image preprocessing techniques for Diagnosis of Blood Cancer.
- Used SVM Algorithm to distinguish between healthy and Cancer Cells and KNN Algorithm to further classify cancer cells into AML or ALL type of Leukemia.

Academic Projects

Designed Airbnb Booking System — Jan 2023 - Mar 2023
- Developed a web application in MERN Stack that allows users to search, host, bookmark and reserve and cancel a property.
- Implemented CRUD operations in MongoDB, user authentication, and REST API's in Nodejs to support ajax calls from React.

Encrypted File System — Jan 2023 - Feb 2023
- Designed and implemented an encrypted file system in Java using SHA256 hashing for password validation, encryption of file chunks, and HMAC generation for data integrity. Optimized file operations for efficient read/write performance and encryption/decryption.

Pothole Detection and Mapping Android Application — Aug 2020 - Nov 2020
- Developed an android application that detects the presence of potholes using Inception V3 and Transfer Learning and plots the location of the detected potholes in maps.

Helmet Detection and License Plate Scanning — Jul 2019 - Dec 2019
- Developed a helmet detection software that recognizes whether a motor-cycle driver is wearing a helmet or not. If said driver is not wearing a helmet, then the software uses the License plate image detection system to recognize the owner of the vehicle and sends an email to warn the driver.

Technical Skills

Languages: Python, SQL, React js, Node js, R, C++, Java, HTML, CSS, JavaScript
Framework and tools: PySpark, Pandas, Numpy, Kubernetes, Oodo, NLTK, PGAdmin, OpenCV, Git, RStudio, Openvino
Industry Knowledge: Web Development,Statistics, Machine Learning, Deep Learning, Data Analytics, Big Data, DSA
Databases: Postgres, MySQL, MongoDB

Other

Teaching Assistant for the Undergraduatecourse,Data Structures and Algorithms
Member of the Rotaract club at SRMInstitute of Science and Technology,India
Attended workshops on ethical hacking, web designing and Database design