Nikhil Naik

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EDUCATION

Stevens Institute of Technology;   Hoboken, New Jersey   **May 2024 (Expected)**
Masters in Machine Learning   Current GPA: **3.965** / 4.0
Courses: Deep Learning, Big Data Tech, 3D & 2D CV, NLP, Knowledge Discovery and Data Mining

Datta Meghe College of Engineering;   Mumbai, India   **May 2018**
Bachelor of Engineering in Electronics

PROFESSIONAL EXPERIENCE

Gajshield Infotech – Software Developer;   Mumbai, India   **Sept 2018 – Mar 2021**
Machine Learning Projects - Lead Developer: (Tools: *Python, Sk-Learn, RASA, MS Excel*)
- Independently developed a ML model to improve Gajshield Firewall's email security, achieving 97% accuracy in filtering malicious emails. Reducing load on the sandboxing system and reducing delivery delays by 60%
- Developed a Chatbot Assistant using open-source NLP tool RASA, and Flask, empowering the L1 support team to efficiently address basic customer issues and decreasing the workload on L2 engineers and developers by 50%

Software Development Projects - Team Leader 4 members: (Tools: *Python, Linux, VPN, IP & Routing Tables*)
- Designed and implemented a Cloud-managed Centralized VPN product, leveraging open-source VPN on Linux, achieved 1.5x speed enhancement and added robust capabilities through centralized administration
- Architected the implementation of SDWAN in 30 firewall models. Utilized Python, C++, and Linux modules for automatic network path switching based on user-defined SLA policies, significantly enhancing firewall's capabilities
- Enhanced and transformed frontend of Gajshield Firewall's UI, utilizing Web2py, ExtJS, Pygal and Chartjs

Technical Initiatives and Achievements:
- Served as Gajshield's technical representative, collaborating with Bharat Petroleum Corporation to design and implement Zero Touch Provisioning to deploy over 300 Firewalls with a centralized Cloud Management System
- Delivered a technical presentation during international launch event of new firmware of Gajshield Firewall.
- Optimized productivity of software development team's SDLC process by incorporating Kanban Agile techniques

RESEARCH & TECHNICAL PROJECTS

WMT 2024 – Machine Translation Competition *(Hugging Face, FairSeq, Generative Artificial Intelligence)*   **Present**
- Representing Stevens at an International conference, contributing to cutting-edge research in machine translation
- Developing an advanced LLM pipeline, fine-tuning models like MT-5, BERT and GPT based on competition's task

Forex Rate Prediction – Deep Learning *(Colab, Keras, Keras_Tuner, LSTM, RNN, Python) -GitHub*   **Mar 2023**
- Developed RNN & LSTM neural networks, Hyperparameter tuned the best model for 0.0046 MSE & 0.45 R2 score
- Architected a baseline model with In-Domain generalized data and fine-tuned model using transfer learning

CitiBike Usage Forecast – Big Data ML *(GCP, Spark, MLlib, SQL, Zeppelin, Python) -GitHub*   **Apr 2023**
- Leveraged PySpark to create ETL pipeline on 40GB of dataset to train a distributed multivariate regression model
- Successfully executed on Google Cloud Platform using Dataproc, demonstrating capability in handling big data

University Recommendation System *(SkLearn, Clustering, EDA, Jupyter, Python) -GitHub*   **Nov 2022**
- Used Silhouette Cluster Analysis, Compared models using ROC curves with best performance of AUC – 80.2 %

Telemarketing Campaign Prediction *(SkLearn, ImbLearn module, GridSearchCV) -GitHub*   **Sept 2021**
- Performed Exploratory Data Analysis to gain data insights, selected and tuned best Machine Learning algorithm
- Awarded certificate by UniCoverage Technologies for achieving accuracy of 95% employing KNN Classifier

Sign Language Interpreter Glove *(Arduino, Bluetooth, Gyroscope, Accelerometer, Flex sensors)*   **Apr 2018**
- Built a Glove to translate ASL to English utilizing Arduino Uno, with User Interface on Android/windows application
- Paper published on proprietary gesture detection logic and participated in a national competition organized by IETE

TECHNICAL SKILLS

Certifications:	**AWS: Solutions Architect Associate - *Cert***	IIT Roorkee's Data Science - *Cert*
	Fundamentals of Data Mining - *Cert*	Algorithmic Toolbox, Coursera - *Cert*
Programming Technologies:	Python, C++, Shell, JavaScript, MySQL, SQLite, MSSQL, JSON	
Frameworks:	Fairseq, Transformer, TensorFlow, PyTorch, Keras, OpenCV, Spark, Django, Flask	
Other Tools & Tech:	Scikit-Learn, NumPy, Pandas, Amazon Web Services, SageMaker, S3, EC2, Lambda, Docker, Linux (CentOS), Apache Web Servers, Full Stack, SDLC, Kanban, Agile	

PUBLICATION

Title:	Sign Language Interpreter for Hearing and Speech Impaired Community	**Apr 2018**
Details:	IEEE Bombay Section's ICATE-2K18 Event	ISBN: 978-93-5267-422-0	

ADDITIONAL INFORMATION

Volunteered for Junior & Youth Red Cross   Languages: English, Hindi, Kannada, Tulu, Marathi