# AMOGH MAHADEV KOKARI
STEM OPT (Eligible 3-years)
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## EDUCATION

**Stevens Institute of Technology**, Hoboken, NJ | *Expected* May 2023
**Master of Science in Information Systems** | **(GPA:3.9/4)**
**Relevant Coursework:** Mobile Systems and Applications, Integrating IS Technology, Data Analytics and Machine Learning, Deep Learning, Management of AI, Big Data Technologies, Data Management, Human Centered Design Thinking
**Recognition:** Provost Masters Scholarship and Vice President of Stevens Graduate Financial Association

**Dayananda Sagar University**, Bangalore, India | June 2019
**Bachelor of Technology in Computer Science Engineering**

## TECHNICAL KNOWLEDGE

**Programming:** Python (Flask, BeautifulSoup, Nltk, Pandas, NumPy, Sklearn, PyTorch, PySpark, Keras, TF-IDF), Go, C, C++, JAVA, HTML, CSS,
**Database:** SQL, MySQL, PostgreSQL, MongoDB, AWS S3, GCP (BigQuery)
**Domain:** Data Analytics, Business Analytics, Machine Learning, Web Mining, Data Science, Agile, Software Development (Backend)
**Statistical Analysis:** Linear Regression, Descriptive statistics, Hypothesis testing, A/B testing, t-tests, ANOVA, Correlation, chi-squared
**Machine Learning Algorithms:** PCA, Regression, Random Forest, Neural Networks, K-NN, Clustering, Naïve Bayes
**Tools:** Spreadsheets (Google Sheets, MS Excel), Tableau, Looker, AWS, Databricks, REST web services, Docker, Asana, Git, Postman

## PROFESSIONAL EXPERIENCE

**Build Health International** | **Beverly, MA**
**IT Intern** | May 2022 to August 2022
- Utilized **Tableau** to analyze data and create **visual dashboards** to understand reasons behind fatalities in Haiti and identify correlation between Monkeypox and Coronavirus, leading to a better understanding of the spread of diseases
- Implemented automated **Asana** form-based task generation integrated with **Slack**, improving employee onboarding from 1 day to 1 hour
- Managed IT systems, security and data stored over **Google Cloud**, enabling secure collaboration between teams spread across the globe

**Stevens Institute of Technology** | **Hoboken, NJ**
**Teaching Assistant** | January 2022 to December 2022
- Applied and taught introductory concepts in **Python** (including libraries like **Pandas**, **NumPy**, **Matplotlib**, **Seaborn**), **Tableau**, **Data Analysis**, **Data Mining**, **Machine Learning**, **Business Intelligence** and **Data Integration** through case studies in the real world.

**Research Assistant** | September 2021 to May 2022
- Designed and developed Human Computer Interaction Lab's official website by collaborating with a team of researchers and developers, leveraging **HTML, CSS, JavaScript**, and **React.js** to create an intuitive user experience
- Recruited participants, set up experiments, and collected data for emotion, attention, and depression study in lab and classroom settings
- Achieved 84% accuracy on a **Machine Learning** model (**LightGBM** model autotuned with **Optuna**) to detect participant's anxiety, boredom and flow by extracting over 50,000 dynamic **Facial Features** in **Inter-Vector Angles** and **Action Units** over .5 second timeframe in **Time Series** dataset, used the results in research papers submitted to AIED and IMWUT conferences

**Razorpay** | **Bangalore, India**
**Software Development Engineer** | June 2019 to June 2020
- Utilizing a team-based **Agile** setting, **Integrated** PayPal, Simpl, and Jana banks' payment gateways using **REST API, php, Golang, Docker** that increased international payment and purchase success rates, leading to an estimated $60,000 in monthly savings
- Built **REST APIs** using the **Go Programming Language**, **Docker**, and **Kubernetes** to ensure secure and reliable payment processing
- Implemented a **Test-Driven Development** (TDD) methodology to ensure code quality and reliability
- Utilized **Git** and **GitHub** to manage source code, track changes, and collaborate with the development team
- Optimized monolithic codebase to **API-based Distributed Microservices**, automating failure escalation and enhancing payment speed, efficiency, and risk analysis of more than 1 million payments processed daily, resulted in increased revenues and merchant base

## PROJECTS

**Real or Fake job posting classification using GaussianNB** | September 2022 to December 2022
- Led a team of 3 to develop a **Gaussian Naive Bayes** machine learning model to **Classify and Predict** fake-real job postings based on **Text Analysis** of demographics and industry using **Natural Language Processing (NLP)**, achieving an accuracy of 0.98, F1 score of 0.86, recall of 0.80, and precision of 0.94 (macro average)

**Full Stack YouTube Channel Text Analysis** | September 2022 to December 2022
- Developed an end-to-end **Flask** based **Web Application** that extract YouTube data (**Web Scraping and Mining**), clean, **Preprocess** and **Feature Engineer**, generate **Word Cloud** (titles, descriptions, tags) and dissect video like counts to **high and low (0,1)** for classification
- Implemented 7 ML classifiers (**GaussianNB, LGBMClassifier, XGBClassifier, AdaBoostClassifier, LogisticRegression, GBTClassifier, NaiveBayes**) and compared runtimes (**Spark vs CPU**) to classify user input (title and description)

**Deep Learning model to Detect Emotions with Intensity using 32 Channel EEG** | February to May 2022
- Led a team of 3 to leverage 32-channel EEG data for emotion detection, utilizing **Time Series** data extraction for **Exploratory Data Analysis (EDA)**, and built **Deep learning** model with **Hard Parameter Sharing** between **Gated Recurrent Unit (GRU)**, **Linear**, **Relu Neural Network** layers and **Linear**, **SoftMax Neural Network** layers using **PyTorch Python** module
- Achieved an accuracy of 86% in predicting the emotions with intensity

## CERTIFICATIONS

**AWS Certified Cloud Practitioner** | December 2022
**AWS Machine Learning Foundations, Udacity** | September 2022 to October 2022
**Applied Data Science with Python Specialization, University of Michigan** | June to July 2022