Chaitanya Kotcherlakota

nk3313@nyu.edu || +1 (704)-957-8498

EDUCATION

New York University, Master of Science, Computer Science and Engineering May 2023
*Relevant Coursework: Algorithms, Programming Languages, Machine Learning, Foundations Of Data Science, Operating System, Computer Networks (**GPA**-3.9/4.0)*

University of Wisconsin, Madison, B.Tech. Computer Science (Exchange Program) May 2020
Relevant Coursework: Medical Image Analysis, Principles Of Databases, Differential Equations, Artificial Intelligence

SRM University, Bachelor of Technology in Computer Science Specialized in Machine Learning May 2021
***(GPA**-9.2/10)*

TECHNICAL SKILLS

Programming Languages: Java, Python, Node JS, Octave, MATLAB, HTML5, JavaScript, R
Tools: GIT, Docker, Spark, TensorFlow, Pytorch, Flask

PROFESSIONAL EXPERIENCE

Machine Learning Intern, **Sunkonnect,** Singapore May.2021- Aug.2021

- Define, design and implementation plan for developing complex machine learning application to predict Solar Active Power
- Extensively involved in all phases of data acquisition, data collection, data cleaning, model development, model validation, and visualization to deliver data science solutions.
- Tackled highly imbalanced Fraud dataset using sampling techniques like down-sampling, up-sampling and SMOTE (Synthetic Minority Over-Sampling Technique) using Python Scikit-learn.
- Used PCA and other feature engineering techniques to reduce the high dimensional data, feature normalization techniques and label encoding with Scikit-learn library in Python.
- Used Pandas, NumPy, Seaborn, Matplotlib, Scikit-learn in Python for developing various machine learning models such as Logistic regression, Gradient Boost Decision Tree and Neural Network.
- Used cross-validation to test the models with different batches of data to optimize the models and prevent overfitting.
- Experimented with Ensemble methods to increase the accuracy of the training model with different Bagging and Boosting methods.

Research Assistant, **National University of Singapore,** Singapore May. 2020- June.2021

- I work as a Blockchain researcher under the Mentorship of Dr. SreeRam and Dr. Goutam Dalapathi, during this internship I worked on a Research Paper titled "Blockchaining on Plastics" which proposes blockchain based algorithms for efficient plastic recycling and Data storage techniques on Sequence defined Macromolecules.
- my responsibilities include Applying theoretical expertise and innovation to create or apply new technology, such as adapting principles for applying computers to new uses. Conducting logical analyses of business, scientific, engineering, and other technical problems, formulating mathematical models of problems for solution by computers.

Machine Learning Intern, **Whistle Drive**, India May. 2019-July 2019

- Define, design and implementation plans for hosting complex application workloads on MS Azure
- Troubleshoot and identify performance, connectivity and other issues for the applications hosted in Azure platform
- Created complex machine learning algorithms and worked on large sets of data using AzureML
- Used the generated code by Azure ML to make better predictions and smarter applications
- Built and evaluated binary classification predictive model using AzureML.
- Published the model as a web service classic by eliminating data splits and other unnecessary steps and training in a model on Azure.
- Used PCA and other feature engineering, feature normalization and label encoding Scikit-learn preprocessing techniques to reduce the high dimensional data (>1 50 features).
- Experimented with predictive models including Logistic Regression, Support Vector Machine (SVM), Random Forest provided by Scikit-learn, XGBoost, LightGBM and Neural network by Keras to predict showing probability and visiting counts.
- Worked with Strategy head to provide actionable aggregated results of store level performance which would lead to improve the organization overall performance in terms of revenue. Programmed in Python.

Artificial Intelligence Researcher, **Next-Tech Laboratory**, India May. 2017- May.2021

- At this lab, I focus on theoretical aspects of Artificial Intelligence and application development that could have real-life use-cases that are based on techniques like Machine Learning, Deep Learning, and Reinforcement Learning. My research focus is on NLP, Reinforcement Learning
- My responsibilities include, analyze information processing or computation needs and plan and design computer systems, using techniques such as structured analysis, data modeling and information engineering. Write, analyze, review, and rewrite programs, using workflow chart and diagram, and applying knowledge of computer capabilities, subject matter, and symbolic logic

PUBLICATIONS

Deep-Learning Algorithm to classify Computed Tomography images by estimating infected Regions
(Published in IJSERM (International Journal Of Scientific Research In Engineering And Management)- October 2020)
Estimating Polarity of a textual sentences by using sentimental analysis techniques.
(Published in International Journal of Advanced Research Engineering and Technology (IJARET)", Volume 12, Issue 4, 2021)

PROJECTS

Monthly Sales and Term Deposit Prediction of Portuguese Bank Marketing Data 2021

- Worked On Cleaning data and performed individual and multi-variable analysis and Created EDA reports
- Performed PCA and Chi-Square Tests across multiple features and worked on multiple Machine Learning Classifiers.
- Performed SMOTE analysis and validated results with performance of Individual Classifiers.
- Trained the ensemble algorithms in parallel On High-Performance Systems and compared the results with Classifers

Secure Note – Decentralized Content Sharing Application Built On Blockchain 2020

- An Off-chain application built using blockchain technology for decentralized complaint registration
- This project won 2000usd which was built for Maker's Dao governance challenge at ETH-Denver -2020. This chain was deployed on Heroku Cloud.

Web Application to Record student Attendance based on Face Recognition 2019

- Designed and implemented and end-to-end algorithm for face recognition and downloading the excel sheet of attendance.
- This was built using open CV library in python and the web application was backed by Flask framework.

Hawk Eye- Intelligent Burglary detection software 2018

- The software was developed to catch the bugler by retrieving the bugler's location using machine learning algorithms
- The software includes various features like image enhancing, AI feed correction and AI video enhancer which are used for better accuracy.

Omni Analyzer - Web Application based Personalized Product Reviewer 2017

- built using natural language processing library for analyzing tweets and used sentimental analysis for judging the quality of a product and provide with the reviews of the products to the end user.

Automatic Data analysis - Web Application 2017

- built a flask-based application for automatic analysis of any numerical data given and give the accuracy obtained when used with various machine learning algorithms.

HONORS AND ACHIEVEMENTS

- 16000 USD Merit Scholarship From New York University to pursue master's in computer science Aug 2021
- Won 2000 USD for building an off-chain application at ETH-denver-2020 Mar 2020
- Scholarship of 14,000 USD from SRM University for exchange studies At UW Madison Jan 2020
- Scholarship of 5000 USD funded by University of Wisconsin, Madison Jul 2020
- Won 4000 for best innovation hack at SRM University 2019 Nov 2019
- Won 10,000 in SRM HACKATHON 2018 held at Amaravati Nov 2018