

RUCHIT MODI

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EDUCATION

Stony Brook University, Stony Brook, NY

Dec 2020 (Expected)

Master of Science in Computer Science (Concentration in Data Science and Engineering)

GPA 3.96/4.00

- Relevant Courses: Machine Learning, Natural Language Processing, Artificial Intelligence, Data Science Fundamentals

Veermata Jijabai Technological Institute (VJTI), Mumbai, India

May 2016

Bachelor of Technology in Information Technology

GPA 9.61/10.00

- Relevant Courses: Data Structures and Algorithms, Operating Systems, Data Mining, Network Security

TECHNICAL

- Languages: Java, Python, MySQL, MS SQL, Hive, HBase, C/C++, HTML, CSS, JavaScript, PHP, JSP
- Tools: Git, Maven, Redis, ReactJS, Spring, RabbitMQ, Apache Flink, Apache Kafka, REST, Tensorflow, Docker
- Utilities: IntelliJ Idea, Visual Studio Code, Jupyter, MacOS, Windows, Linux

EXPERIENCE

Amazon.com, Seattle, WA

Jun 2020 – Aug 2020

Software Development Engineer Intern (Skills: Spring, REST, ReactJS)

- Developed a web application in ReactJS for a self-service tool to onboard strategies to Kindle Strategy Service (KSS), Amazon recommendation tool; reduced the average onboarding time from 2 weeks to 2 days
- Modified the KSS production code to streamline the existing onboarding process by automating validation and testing

Media.Net Software Services Pvt. Ltd. (Directi), Mumbai, India

Jul 2016 – Aug 2019

Software Development Engineer 2 (Skills: Git, Maven, Redis, Jupyter, RabbitMQ, Flink)

- Designed and implemented an entire data flow architecture for automation of keyword launch pipeline for advertisement using RabbitMQ and Apache Flink; improved the efficiency of the pipeline by ~80%
- Devised an algorithm to show contextual ad keywords on a webpage using information from the content of its parent url webpage; contributed an additional ~50% revenue to the existing analyser
- Created a search engine api which returns Bing search results of a keyword from Microsoft Cognitive Services and computes its relevant phrases using TextRank: a modified PageRank algorithm
- Implemented Thompson sampling (Bandit algorithm) to explore similar intent keywords and exploit the best keyword earning higher revenue per impression

PROJECTS

Email Classification Using Supervised Learning Algorithms (Skills: NLTK, ML, NLP, Latex)

- Devised a text classification algorithm to help classify emails into custom user-defined labels; performed data preprocessing and feature selection, and implemented two supervised algorithms: k-NN and Naive Bayes Classifier
- Published a technical paper in “[Advances in Intelligent Systems and Computing](#)” series of Springer publications

COVID-19 And Crime (Skills: Python, Jupyter, Pandas, Data Science, Statistics)

- Conducted extensive data analysis to assess the impact of COVID-19 on crime rates in San Francisco
- Performed time-series analysis using Exponentially Weighted Moving Average; conducted hypothesis tests such as Wald's test, Z test, KS test, Chi square test and Permutation test to validate inferences

IEEE-CSI Fraud Detection (Skills: Python, Jupyter, Numpy, Scikit-learn, Data Science)

- Performed analysis of fraudulent card transactions and examined correlations using data visualization tools
- Implemented feature engineering techniques and developed prediction models using Logistic Regression and XGBoost

Pacman and Tic Tac Toe (Skills: Python, Artificial Intelligence)

- Developed AI agents using Minimax, alpha-beta pruning and efficient low-cost search algorithms such as A star

ADDITIONAL

- Award Recipient, JRD Tata Scholarship (2015 and 2016) for excellent academic performance
- Runner up, Technohunt (2015), a treasure hunt inspired coding competition in Technovanza, VJTI
- Runner up, Android Application Coding Challenge (2014), Credit Suisse Group