PRANAY PATODI

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EDUCATION

The George Washington University, Washington, DC, Master of Science in Computer Science, **GPA**:3.8/4   **May 2021**
Courses – Analysis and Design of Algorithms, Big-data and analytics, Artificial Intelligence, Machine Learning, Neural Networks
Rajiv Gandhi Proudyogiki Vishwavidyalaya, India, Bachelor of Engineering in Computer Science, **GPA**: 7.7/10   **May 2018**
Courses – Data Structures, Object Oriented Technology, Cloud Computing, Database Management System, Operating Systems

TECHNICAL SKILLS & CERTIFICATIONS

- **Programming Languages:** Python, Django, R, ReactJS, HTML5, CSS3, JavaScript, Graphql, C and C++
- **Database Languages:** MySQL, NoSQL, PL/SQL and SQL
- **Cloud Based Services:** AWS (EC2, S3, RDS, DynamoDB, Lambda, Athena, Glue, Transcribe, Redshift),GCP
- **Tools and Libraries:** Tableau, PySpark, Python Libraries (Tensorflow, Spacy, Pandas, Numpy, Scikit Learn, OpenCV, Keras) and Rest APIs
- **Certifications:** AWS Certified Cloud Practitioner, Microsoft Technology Associated for Database Administration Fundamentals (2017)

WORK EXPERIENCE

The George Washington University - Research Assistant | Washington, DC, USA   **January 2021-Present**
- Applied Statistical, Predictive machine learning and NN techniques to analyze EHR and biological data related to COVID-19
- Constructed big data ETL Pipelines to process 6 Billion records using SQL and Pyspark in order to generate visualizations for observing patterns between different features and accordingly feed the data for analysis
- Conducted literature review and reporting concerning methodological aspects of literature of excess mortality after natural disasters

Virtual Emerging Technology Solution (V-ETS), LLC - Data Analyst Intern | Washington, DC, USA   **June 2020-November 2020**
- Conducted exploratory analysis on healthcare data utilizing statistical and deep learning approaches
- Architected big data ETL pipelines using AWS Services to process, clean and ingest semi structured data
- Performed data preprocessing, visualization and analysis using Python, AWS Athena, AWS glue and Tableau
- Lessened cost and usage by 27% of AWS Cloud services and performed data migration between salesforce and AWS

Bankey, LLC - Software Engineer Intern | Washington, DC, USA   **March 2020-June 2020**
- Created new components for the user interface, and developed and integrated money transfer in the current software; documented software requirements to help engineers and stakeholders understand the underlying technology

MMF Infotech Technologies Pvt. Ltd. - Software Engineer - Data | Indore, MP, India   **July 2017-June 2019**
- Analyzed data to drive optimization and improvement of product development, marketing techniques and business strategies
- Collaborate with data engineers on data preprocessing, analysis and business team to bring analytical prototypes to production
- Performed and run both simulated and live experiments (A/B and multivariate tests) to drive KPI improvements and implemented complex models and algorithms that drive analytical solutions throughout the organization
- Identified and articulated the key business reporting needs, presented data driven stories, educate others, and created plans to build confidence with stakeholders
- Created a Chatbot for E-commerce platforms to help users with searching for products according to interest and to provide responses to FAQ's. Integrated NLP leveraging Google library, Dialogflow, to optimize chatbot to make more natural conversations

TECHNICAL PROJECTS

Speech Emotion Detection (Python, Keras, Tensorflow)   **July 2020**
- Devised CNN model to detect emotion of a person by analyzing speech signals from audio
- Trained model on SAVEE dataset to predict/detect 7 emotions of a person
- Deployed Linear regression and recursive feature elimination to transform data for better accuracy. Reduced training time by 35%

Health Chatbot (Python, Tensorflow, Spacy, Keras, Neural Networks)   **May 2020-June 2020**
- Developed retrieval based chatbot for health app for logging daily calories intake by user in meals
- Formulated a food recommendation engine to monitor daily calorie intake and suggest meal from 10000 recipes
- Automated meal logging, trained model for identifying food entities, fetching relevant information from user input

Predicting Term Deposit Subscription (Python, Tableau)   **April 2020-May 2020**
- Predicted likelihood of clients subscribing to a term deposit plan offered by a bank
- Implemented Supervised Learning Techniques like – Naïve Bayes, ANN and KNN to select variables which were drivers of customer decision. Accurately predicted 87% results

Healthcare - Predicting Chronic Kidney Disease (CKD) (Python, Excel, Tableau)   **April 2020-May 2020**
- Analyzed the likelihood of CKD in a dataset of 8819 patients
- Predicted CKD risk with logistic regression, random forest, and backward selection
- Developed an easy-to-use screening tool in Advanced Excel

Social Distancing Monitor (Python, Tensorflow, OpenCV)   **May 2020**
- Contrived a program to detect whether people keep social distance by analyzing real time cctv cameras feed
- Trained model for detecting people and measuring the Euclidian distance between two people

Artificial intelligence agent for Tic-Tac-Toe Game (Python)   **March 2020-April 2020**
- Implemented Minimax, Reinforcement learning, Q-learning algorithms to play tic-tac-toe with opponent team
- Demonstrated drastic improvement of runtime by implementing alpha-beta pruning, cache and heuristic functions

Amazon Web Scraper and Repricing Tool (Python, Django, Selenium)   **March 2020-April 2020**
- Constructed a web application to source products from amazon store utilizing Amazon MWS Product API from a seller and reprice those products on basis of pricing rules leading to rapid listings of products for a dropshipping business
- Created back-end, user interface, and structured data in database optimizing response time by 25%

Loggedinapp (PHP, HTML, CSS, Javascript)   **August 2018-February 2018**
- Worked in a team of 5 and built a web backend for a marketplace platform for E-commerce, Booking system, Consultant services, Apartment rental business
- Integrated Stripe payment gateway in all modules, managed all payments made by customers on mobile application and generating orders or bookings, connecting Postmates API to provide local delivery services for e-commerce module

Travista (Major Project) (Django, Python, AJAX, HTML, CSS, Javascript)   **November 2017 – March 2018**
- Developed a web application for tourists to get information about nearby places, Hotels bookings, Offers/Deals in area
- Built back-end, displayed locations by Google Maps API, QPX express API for flight bookings, structured and managed database

ACHIEVEMENTS AND EXTRA CURRICULARS
- Participated in Indore International Model United Nations Conference, 2017
- Enthusiastically volunteered Rahgiri and managed backstage activities to conduct event smoothly