Vignesh Viswanathan

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EDUCATION

M.S., Computer Science, **The University of Texas at Dallas** August 2019 – May 2021

B.E., Electronics and Telecommunications, **University of Mumbai** July 2015 - May 2019

TECHNICAL SKILLS

Certifications: AWS Certified Solutions Architect – Associate (June 2020 – June 2023)
Languages: Python, Java, C, C++, R, SQL, JavaScript, HTML/CSS, Swift, C#, Scala.
Tools & Frameworks: HTML, CSS, Angular, React, Git, jQuery, Ruby on Rails, SOAP, REST, Django, PHP.
Machine Learning & Cloud: Pandas, NumPy, AWS, TensorFlow, Docker, Kubernetes, NoSQL, Linux, TCP/IP.

WORK EXPERIENCE

Software Development Co-Op, **Exsilio Tech,** Mumbai, India **October 2017 – April 2019**

- Built data pipelines (Python, SQL, Hadoop, Hive) to determine product impacts on various customer pipelines and proposed solutions to drive impact for intensive analyses. Authored product patent was filed and approved.
- Led the development of the neural engine for classifying obstacles and negligence. TensorFlow Implementation ran the ConvNet to classify 70k images and situations and optimized the hyperparameters to achieve accuracy of 88%.

Software Development Intern, **Bholanath Precision Eng. Pvt. Ltd.**, Mumbai, India **May 2017 – August 2017**

- Improved data warehousing techniques using direct-path inserts and hash joins on PostgreSQL and collaborated with the DevOps team for building continuous integration and continuous deployment pipelines of various services.
- Automated fault reporting and product registration and averted manual work of 20 hours per week by generating and preparing data frames and test cases using Excel, Python, NumPy, Pandas and Scikit-learn.

Software Development Intern, **Internshala**, Mumbai, India **December 2016 – February 2017**

- Improved data mining process and utilized RESTful APIs to infer and analyze sales insights achieving 25% higher sales. Managed the Backend of the website, improving the recommendation engine, and offering enhanced personalization of service. Co-ordinated with a team of 10 interns using Jenkins for the automation server.
- Created an internal-facing application from scratch to accelerate and streamline on-demand report generation. Implemented Angular 6 for the front-end, Spring boot for the back-end, and JDBC along with MySQL for SQL Server, DB2 databases, and stored procedures. Automated report generation using PowerShell.

ACADEMIC PROJECTS

Fake Review Classifier and Identification on Amazon

- Cleansed the dataset containing more than 130M+ reviews of products from 1995-2019 using AWS Glue and utilized standard core NLP to assign sentiment value for each summary feature of each product. Utilized the sentiment value of the review to classify and Silhouette Width to review the consistency in the clusters. Accuracy achieved was 91%.

A2Z Connect - Contacts WebApp

- Used Flask, SQLAlchemy and NodeJS to create a containerized Docker web application similar to Google Contacts. The app is hosted on GCP and secured API endpoints using database backed Basic Authentication and VCN in GCP.

Bulls or Bears - Stock Exchange WebApp

- Architected and developed a complete real-time stock exchange application with data of 150 companies' stock prices using NodeJS, Express, PHP, MongoDB, Python, JSON, and HTML. Implemented real-time price alerts and suggestions for buying/selling using Tidy Quant in R. Created REST API endpoint for seamless integration.

Algorithm Design for Walking Robot

- Designed the algorithm for autonomous walking using simultaneous localization and mapping using Deep Learning and Image Processing. Utilized C++ to code the microprocessor core and Python for machine learning.

CO-CURRICULAR

Graduate Assistant, Big Data and Analytics, **The University of Texas at Dallas** **September 2019 – Present**

- Worked on Scala, Kafka, and Cassandra for managing Hadoop-ecosystem and generated AWS migration roadmaps.
- Managed and collaborated with the team using Agile and created analytical workloads using Databricks and GitHub for version control. Packaged code using Containerization to deploy for production using Docker.