Rajchandra Patel

Greater Tampa Bay Area | 813-370-6212 | rajpschool12@gmail.com | U.S. Citizen

EDUCATION

University of South Florida — **GPA: 4.00/4**
M.S.C.S. Master's in Computer Science (Focus in Data and AI) — Graduated Spring 2023

University of Michigan — **GPA: 3.95/4**
B.S.E. Bachelor's in Aerospace Engineering, Minor in Computer Science — Graduated Spring 2022

RELEVANT COURSEWORK

Data Engineering Fundamentals, Deep Learning, Introduction to Machine Learning/Artificial Intelligence, Web Systems, Computer Vision, Data Mining, Autonomous Mobile Robots, Data Structures & Algorithms, Software Architecture
FOON AI Research Paper Publication: https://arxiv.org/abs/2210.07335

SKILLS

AWS Certified Solutions Architect – Associate (Validation #: 1a701f9ac43e468d9a91a5473e340eee)
Certified SAFe 5 Practitioner
Coding Experience: Python, C++, SQL, Bash, JavaScript, HTML, CSS, MATLAB, Java, Git Version Control

WORK EXPERIENCE

Raytheon Technologies — **May 2023 – Present**
Software Engineer / Data Engineer
- Spearheaded gate cycle time analysis into velocity at which business unit programs pass lifecycle checkpoints
- Leveraged ETL scripts, PySpark (Apache Spark), AWS Athena/S3/Glue for CSV/Parquet datasets, PowerBI tools to consult senior leadership on areas of inefficiencies & making data-driving decisions to reduce gate cycle time
- Designed data architectures including FOM data models & High Level Architecture Publish/Subscribe event data messaging, Topic subscriptions for distributed systems (OOP/C++); documented dataflow/design patterns in UML
- Programmed in Python (pandas, numpy) & R to extract, transform, perform statistical analysis on structured data
- Performed data collection, wrangling; researched potential migration to OLAP Amazon Redshift for analytical data
- Developed automated DevOps pipeline in Python utilizing Gherkin/behave BDD test framework; integrated Bash scripts + ssh technologies to automate HLA product testing in RHEL, decreasing downtime by 37% for end users

Lockheed Martin — **May 2022 – Aug 2022**
College Student Technical Senior Specialist
- Managed over 40 team and leadership member data lists in MySQL database; verified employee ID, name, role
- Presented Jira-Confluence topic session discussing 6 unique macros with live demo for 50+ member audience
- Coordinated Agile framework practices including DSUs, Jira story creation + point estimation, PI planning

PROJECT EXPERIENCE

Baby Pain Neural Network Research
- Developed Python deep learning neural network with TensorFlow capable of learning from data such as temperature, oxygen levels, heart rate to determine baby pain for automated surveillance, reduced nurse supervision
- Loaded, preprocessed/transformed real world data from Tampa General Hospital consisting of 3100+ rows of data
- Configured model with different dropout ratios, learning rates, activation functions, batch normalization layers; experimented with RNN and PeepHole LSTM configuration for time-based data, reaching accuracy of 81%

Insta485 Website Application
- Led team-built social media full-stack application, which allows users to create accounts, login, post/delete pictures, like/unlike posts, comment, follow/unfollow other users, consisting of 12 unique page types
- Developed MapReduce jobs (Hadoop) to process, rank documents via TF-IDF; backend for search query system
- Utilized AWS EC2 for cloud computing, Python Flask for backend and REST API endpoints, SQLite as RDBMS for CRUD operations (SQL injection attack security measures implemented)