

Sohaib Syed

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EDUCATION

Illinois Institute of Technology, Chicago, IL

May 2024

- Bachelor of Science, Computer Science, **3.92/4.0**
- Master of Applied Science, Data Science, **3.90/4.0**

Relevant Courses: Machine Learning, Applied Statistics, Data Mining, Data Prep & Analysis, Big Data Tech

EXPERIENCE

Machine Learning Intern

May 2022 - August 2022

Motorola Solutions Inc., Applied Technology (Python, PyTorch, Bash)

Schaumburg, IL

- Streamlined Wav2Vec2.0 model extraction from Hugging Face, reducing fine-tuned model delivery time by 1 month and enabling the completion of 5+ experiments versus 1
 - Explored novel model architectures, including a CNN and MLP layer, using PyTorch for enhanced VAD capabilities
 - Generated score files for 20ms speech or non-speech classification, simplifying model evaluation and enhancing efficiency
 - Documented detailed extraction to evaluation steps, reducing result reproduction time by 40%
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PROJECTS

Late Tax Payment Classifier for Cook County Treasurer's Office (Python, PySpark, Jupyter Notebooks)

- Collaborated with 3 subject-matter experts for 8 weeks with a team of 5, developed classifier with 75% recall to determine which properties will miss payment date, increased predictive capabilities 100%
- Provided ability to allow CCTO to send additional warnings in advance to targeted individuals potentially saving 90% on mailing expenses, additional potential of collecting 100% of taxes on time
- Presented weekly to CCTO to report progress leading to on-time delivery of product

Credit Card Fraud Detection Analysis (R, RStudio)

- Rebalanced training set using SMOTE in R, achieved 65/35 split between positive and negative class from original 99/1
- Led a team of 4 by delegating tasks, creating schedules and meetings, and producing deliverables all by deadline
- Improved accuracy of the logistic model and decision tree model by 12% and 6%, respectively
- Analyzed residuals and correlation to reduce feature size resulting in simpler and more efficient models

Employee Database (SQL, Java, DBEaver, PostgreSQL)

- Implemented a SQL script to create a database with 7 tables used to store employee data
 - Programmed a Java application to communicate with a PostgreSQL database to keep and update employee information
 - Configured database to allow admin, manager, and employee users with different information privileges; improved privacy
 - Managed a team of 3 by organizing meetings and delegating tasks to meet project deadline
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SKILLS AND INVOLVEMENT

Programming Languages: Python (NumPy, Pandas, Scikit-learn, PyTorch, PySpark), R (caret, dplyr), SQL, HQL, Java

Technologies: Jupyter Notebooks, Git, DBEaver, PostgreSQL, Linux/Bash, AWS (S3, EC2, EMR), Hadoop, Azure

Certifications: J.P. Morgan's SWE on Forage, Microsoft Learn AI Skills Challenge, Python for Data Science by Uplimit

Extracurricular: Muslim Student Association, Volunteer at Sacred Learning Center, Association for Computing Machinery