Sahithi Tummala

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EDUCATION

Purdue UniversityWest Lafayette, INBachelor of Science in Data ScienceAug 2020 - May 2024

WORK EXPERIENCE

Microsoft | Software Engineering Intern

May 2023 - Aug 2023

- Implemented a feedback system utilizing React/Typescript, resulting in elimination of duplicate feedback, accidental feedback drop-offs, and manual intervention of feedback assignment with improved response time.
- Streamlined registration process of 10+ pages to feedback system, reducing manual entry time.
- Managed a bug bash event with 10 team members to demo new feedback system with sample data.
- Created a comprehensive training deck to navigate new feedback system, resulting in reduced training time by 50%.

Caterpillar Inc. | Data Analytics Intern

May 2022 - Aug 2022

- Developed a Python script to simulate 10,000 user website paths for parts.cat.com to validate similarity of paths with 85% accuracy.
- Calculated top 20 frequent Google Analytics visitor paths compared against simulated paths to uncover behavioral patterns.
- Built a clustering algorithm using 12+ website features and grouped visitor fingerprints to help better predict customer revenue.
- Won 1st place in intern hackathon by collaborating with a team to improve self-authorization in the Caterpillar ecosystem.

John Deere - Purdue University | Data Science Consultant

Aug 2021 - May 2022

- Computed cumulative Diagnostic Trouble Code (DTCs) duration and Warning Level alerts for each decal model in Python.
- Identified top 3 models with longest DTC duration and most Warning Level alerts to better understand operational intent.
- Labeled key cycles of 10,000+ machines with team based on machine location and date to filter out anomalies in data.

Cummins - Purdue University | Data Science Consultant

May 2021 - May 2022

- Led development and deployment of 5 web pages using React to display prognostics and data analytics as a paid consultant.
- Translated client's business needs into technical tasks and scoped work with team to create the product.
- Demonstrated expertise in integrating backend with web UI utilizing Django/Docker and gave 3 demos to ensure user accessibility.

Purdue University | Research Assistant

May 2021 - Aug 2021

• Simulated various 3-predictor combinations with the Pareto-optimization algorithm in R to find optimal job performance while maintaining a diverse workforce.

Ford - Purdue University | Data Science Consultant

Aug 2020 - May 2021

 Contributed to building 2 annotation tools, modular annotation, and SQL annotation, using Bootstrap and Django, and deployed to Ford Motor Company for creating high-quality annotations for internal AI/ML projects.

ADDITIONAL EXPERIENCE

Purdue University | Undergraduate Teaching Assistant

Jan 2024 - May 2024

- Provided hands-on assistance to students during lab sessions, offering personalized guidance to debug code
 effectively and troubleshoot technical issues promptly.
- Demonstrated expertise in data science concepts and Python by addressing student inquiries in-person and online.

UNIVERSITY PROJECTS

Data Science Capstone | Bank Lending Prediction

Jan 2023 - May 2023

- Developed and implemented a boosted decision tree classifier in 8-person team using Python to predict loan repayment probability, achieving a Matthews Correlation Coefficient (MCC) of 0.22.
- Utilized advanced feature importance techniques to identify and analyze the top 5 predictive features influencing loan repayment.

Argus Aug 2022 – Dec 2022

• Established an environmental monitoring website in 5-person team utilizing React and Django that tracks and monitors past, current, and future environmental activities (i.e., temperatures, earthquakes, tsunamis, greenhouse gasses).

Queue21 Jan 2021

• Developed a virtual gueue system in 3-person team using HTML, CSS, and JavaScript in 3-day hackathon.

Mask On Oct 2020

 Designed and implemented a COVID-19 symptom checker and hospital resource in 4-person team using Swift.

TECHNICAL SKILLS

Programming Languages: Python (Numpy, Pandas, Sklearn, Matplotlib, XGBoost), Java, R, React/Typescript, SOL, JavaScript, Swift, SAS

Technical Tools and Frameworks: REST, Django, SQL Server, Power BI, AWS, Databricks, Docker **Data Science Disciplines:** Data Analytics, Google Analytics, Machine Learning, Feature Engineering, Clustering, NLP, ETL, Marketing Attribution

Relevant Coursework: Object Oriented Programming, Discrete Math, Introduction to Data Science, Data Structures and Algorithms, Probability, Software Engineering, Data Mining and Machine Learning, Probability Theory, Introduction to Artificial Intelligence, Data Science Capstone, Large Scale Data Analytics, Statistical Programming, Information Systems, Introduction to Cryptography

EXTRACURRICULAR ACTIVITIES

Boilermake Executive Board | Communications Team

March 2021 - May 2024

- Led all external communications for Purdue's largest hackathon: a 36-hour event with over 400 student attendees.
- Managed a team of 5 and increased Instagram account engagement by 200% by generating 3+ posts every month.