Abhiram Pendela

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EDUCATION

Texas A&M University   College Station, TX
BS in Computer Science & BS in Statistics — GPA: 3.869   *May 2026*
Relevant Coursework: Data Structures & Algorithms, Computer Systems, Design & Analysis of Algorithms, Programming Languages, Machine Learning, Natural Language Processing, Mathematical Statistics I & II, Linear Algebra

EXPERIENCE

Software Engineering Intern   June 2025 – August 2025
Capital One   *Plano, TX*
- Engineered an event-driven, microservices-based backend for 2 critical Auto Finance Risk workflows, leveraging AWS services including SNS, SQS, Lambda, Glue, and Route 53
- Translated complex business logic into optimized PySpark and SQL components, leveraging an in-house Python library
- Integrated with Snowflake and enterprise Data Lakes for seamless data ingestion and loading daily for 47 million records
- Deployed scalable, fault-tolerant, secure, and cost-efficient pipelines aligned with enterprise reliability standards

Undergraduate Machine Learning Research Assistant   January 2023 – December 2024
Texas A&M University - College of Construction Science   *College Station, TX*
- Designed machine learning models to detect inaccuracies in engineers' construction cost estimates for infrastructure projects
- Developed KNN+SMOTE and autoencoder models, improving MAE from 74% to 80%, and abstracted into a web app to serve as an aid for field engineers in collaboration with the Texas Department of Transportation (TxDOT)
- Collaborated with TxDOT for end-user testing with the potential of saving 1.47 million dollars with full adoption

Data Engineering Intern   June 2024 – August 2024
Charles Schwab   *Southlake, TX*
- Automated internal dashboards monitored by leadership to monitor 34 real-time KPIs in Schwab Technology Services (STS)
- Utilized Google Cloud (BigQuery, Cloud Functions) and Informatica to build robust data pipelines for daily operations and designed SQL transformations and created standardized tables for downstream analytics and reporting teams
- Won Schwab's intern-wide product & business hackathon developing a mobile app concept to revolutionize personal finance

Data Engineering Intern   June 2023 – August 2023
Fidelity Investments   *Westlake, TX*
- Modernized ingestion pipelines for the Cyber Data and Analytics team by implementing a cloud-native data pipeline
- Utilized AWS, Boto3, and Jenkins to provision S3 buckets and enforce security policies via CloudFormation templates
- Integrated Apache NiFi to automate source-to-S3 data transfer, reducing manual overhead and increasing throughput
- Built DBT models and Python scripts to transform staged data in RDS to be compatible for 7 downstream teams

PROJECTS

Depolarize | *Python, Flask, Hugging Face, Chrome Extension*   January 2025 – May 2025
- Developed a Chrome extension to generate unbiased summaries and visualize bias for political news articles
- Fine-tuned Flan-T5 and BART models on an AllSides.com dataset with 5000 news stories containing politically left, central, and right-leaning articles with a handcrafted neutral summary for each story, achieving ROUGE-L scores above 0.28
- Classified articles on the political spectrum using a RoBERTa model with 84.7% accuracy, beating traditional baselines
- Visualized bias in an intuitive plot for users by quantifying emotional tone in news articles using VAD lexicons

Stathub | *Python, Scikitlearn, BeautifulSoup, Seaborn*   August 2022 – May 2023
- Created a predictive model for the English Premier League with historical team performance and financial data by scraping and normalizing data from transfermarkt.us
- Iteratively performed exploratory data analysis, feature engineering, and model fitting, causing a reduction in MAE from 5.6 to 3.3 points per season

ORGANIZATIONS

Aggie Data Science Club | *External Vice President*   August 2022 – May 2026
- Led machine learning and data science workshops as a Workshops Officer, teaching 100+ students topics ranging from data science basics to Natural Language Processing, Reinforcement Learning, and Time Series
- Promoted to External Vice President and established partnerships with companies and held speaker events and hackathons
- Organized professional development and recruitment events, directly connecting 10+ members to career opportunities

TECHNICAL SKILLS

Languages: Java, C++, Python, JavaScript, HTML, CSS, SQL, R
Enterprise Technologies: Snowflake, Google Cloud Platform (GCP), Amazon Web Services (AWS), Microsoft Azure, Github, Jenkins, Docker, Apache Spark, Apache Nifi, Spark, DBT
Certifications: Microsoft Azure - Fundamentals (AZ-900), AI Fundamentals (AI-900), Data Fundamentals (DP-900)