Grace Tolly

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May 2025 Predicted Graduation; Senior Classification
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Summary

Determined and organized Petroleum Engineering Professional fluent in Python coding and its applications, searching for a career in the energy industry. Proven ability to delegate and lead groups toward a common goal while adapting to challenges. Comfortable with project or detail based work and leadership opportunities, roles, and responsibilities. Excellent time management capability coupled with high level critical thinking abilities, dedication, and persistence.

Education

Texas A&M College Station   August 2019 - Current

- **Pursuing Bachelor of Science in Petroleum Engineering**   Overall GPA: 2.843
  - Minors: Geology, Engineering Project Management   Major Specific GPA: 3.115
  - Focus: Python application and Data Analytics

Work History

Apache Corporation   May 2024 - August 2024

- Reservoir Engineering Intern
  - Finalized a data pipeline between public data sources and private servers using **Microsoft SQL servers, Python, Java, TIBCO Spotfire, Enverus,** and **IHS S&P**
  - Designed field proposals in the Delaware Basin based on area analytics of completion, spacing, and production; validating production forecast with **Machine Learning and Artificial intelligence**

Gas It Up   January 2023 - August 2023

- Data Analytic Intern
  - Created 25+ python scripts to be used for future data processing
  - Processed upwards of 2.5 million lines of data through implementation of Python scripts
  - Improved Microsoft Excel and Access skills while ensuring quality assurance through meticulous inspection of data authenticity using **EIA** and **ArcGIS**

Texas A&M College Station Engineering Department   August 2020 - Current

- Teaching Assistant
  - Providing Office hours for specialized Python support and individualized information for students
  - Supplying supplemental instruction to 250+ Engineering Students about various assignments, topics, and questions, focusing on Python coding and its uses
  - Ensuring accurate grading processes and transcription into TAMU official systems; organizing the grading set times, duration, rubric, managing following assistants with their time constraints, monitoring FERPA compliance, and delegating tasks if needed

Texas A&M College Station Audio Visual Services   January 2020 - Current

- Student Assistant
  - Providing maintenance/troubleshooting and assisting professors with the use of classroom technology (including projectors, computers, TAMU networks,server access, remote access, smartscreens, etc)
  - Delegation and cooperation to distribute software and hardware in a timely manner to areas of campus
  - Reported areas of issue that needed additional assistance through ticketing system in contact with all other IT partners

Brookshire's Grocery Company   April 2017 - Current

- Office Cashier / Certified Pharmacy Technician in Training
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  - Providing quality specialty customer service at the front desk
  - Processing large monetary transactions (Western Union, Lottery, Check Cashing, etc.)
  - Determining and tracking accountability for all monetary transactions in the store by managing up to 15 employees and providing support for employee responsibility
  - Assuring prompt and efficient processing of filling, labeling, and filing of 175+ prescriptions daily, and sale of 75+ customer prescriptions daily
  - Complying with and continuously watching for violations of HIPAA regulations

Research

- Internship TAMU Innovate 4 Defense; Missile Defense Agency   January 2021 - July 2021
  - Collected research in interviews from parties operating and working in the nuclear radiation testing field with Cyclotrons, Particle Accelerators, Energy production and efficiency, and other related areas
  - Organized and highlighted similarities and common issues facing heavy ion test facilities and users in weekly presentations to 25+ member audiences
  - Created solution options for the industry as a whole, individuals/small groups of users and operators
  - ***Published Work*** -accepted submission to the *Institute of Electrical and Electronics Engineers* 'Radiation and its Effects on Devices and Systems' international conference. *'Identifying Common Problems Surrounding Heavy Ion Test Facilities and Users'*
- Lab Scale Drilling System - Aggie Research Certificate Recipient   January 2022 - May 2022
  - Organized within a group to **design, discuss, order, and assemble a working prototype for a Lab Scale Drilling model** for the purpose of creating labs regarding the hardware and software created and participating in the Drillbotics competition in future semesters
  - Headed the **Flow loop and Drill Stem System teams** and created and placed the final orders
- Student Paper Contest
  - 3rd Place achievement, recognition and award; Junior Section   January 2023
    - *'Artificial Intelligence Allows Real-Time Prediction of Pressure Gradient in Unconventional Reservoirs'* - Focus on **Machine Learning AI increasing efficiency and reduction of risks while drilling** unconventional wells, particularly tight or overpressured shale formations
  - 3rd Place Achievement, recognition and award; Senior Section   January 2025
    - *'Machine Learning Replaces Manual Historical Production Forecasts for Infill Wells in the Delaware Basin'* - **Producing production forecasts in under 2 minutes at ~95% accuracy** comparable to engineer produced methods with best practices

Leadership Positions

- Internal Vice President - Student Chapter of the International Association of Drilling Contractors (IADC) (2023-2024)
- Hullabaloo Band Mellophone Co-Lead (2022-2025)

Certifications

- **Saphir** (Pressure Transient Analysis, Rate Transient Analysis) - Kappa Engineering
- Introduction to **Artificial Intelligence** - National Association of State Boards of Accountancy (NASBA) (Continued in two Data Analytics & Machine Learning Courses and Student Paper contest Award (above))
- **TIBCO Spotfire** for Oil and Gas Professionals- SAGA Wisdom
- **Geothermal Reservoir and Hydraulics Design** - SAGA Wisom

Skills

- Fluent in Python coding software including Spyder, Pycharm, Jupyter, VSCode interpreters, and modules
- Self Disciplined, Attention to detail, Proactive problem solver
- Understanding of professional communication and presentation creation and exhibition
- Intermediate in **InteractivePetrophysics**, **CMG**, **Emerald**, CoViz4D, SGems
- Fluent in Microsoft products (Excel, Word, Powerpoint, etc)

Extra Curricular Activities

- Texas A&M University Hullabaloo band (4 hr/wk)
- Brazos Valley Band, The Big band Jazz (6 hr/wk)
- Tutoring in the TAMU College of Engineering (5-10 hr/wk)
- Society of Petroleum Engineers Technical Advancement, Merchandise, & Fishing Tournament Committees (5-8 hr/wk)
- Animal Rescue/Fostering (Aggieland Humane, Zoi's Rescue, etc)