

**Lee William Almasy**

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**Security Clearance:** TS/SCI with Full Scope Poly

**Location:** Open to roles in AI/ML, Data Science, or Engineering

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## Professional Summary

Machine Learning and Data Science enthusiast with over two years of hands-on experience developing and deploying ML models, data pipelines, and analytics tools. Strong foundation in petroleum engineering and numerical simulation, with a recent transition into AI and software development. Skilled in Python, scikit-learn, Orange

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## Technical Skills

- **Languages & Tools:** Python, Pandas, Jupyter, scikit-learn, Orange3, Pyodide, GitLab, Java, JavaScript, C/C++, Visual Studio Code
  - **DevOps & ML Deployment:** GitLab CI/CD, Docker (basic familiarity), Pyodide (Python in browser)
  - **ML/DS Methods:** Random Forests, Hierarchical Clustering, Regression, Classification, SVM, Data Visualization
  - **Other Tools:** Excel/VBA, MS Access, Visual Basic, OLGA/ROCX, Reservoir Simulators
  - **Software Engineering:** Agile, DevOps, code integration, debugging, data processing pipelines
  - **Currently exploring the use of Claude AI to generate code.** Successfully created a stock price predictor that use includes: Markov, LSTM NN, GRU NN, CNN\_LSTM and MLEnsemble methods. Here is a link to that Python code: [Stock Price Predictor](#)
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## Professional Experience

### Clarity Innovations – Computer Scientist

*Aurora, CO | May 2024 – Feb 2025*

- Embedded Python ML models within HTML/JavaScript apps using **Pyodide**.

- Used **GitLab CI/CD** pipelines to automate code deployment and model integration.
- Applied machine learning techniques to analyze embedded datasets and create interactive visual analytics.
- Participated in debugging and enhancing ML-powered web tools using Python and JavaScript.

**National Security Agency – Software Engineer** *Annapolis Junction, MD | Mar 2023 – Feb 2024*

- Supported DevOps pipeline enhancements, focused on containerization with **Linux/Docker**.

**U.S. Department of Interior – Petroleum Engineer (Reservoir Modeling & Data Analytics)**  
*New Orleans, LA & Casper, WY | May 2000 – Feb 2023*

- Developed and automated analytics for **2,100+ Gulf of Mexico reservoirs** using Python/Jupyter.
- Applied **machine learning (Orange3)** to perform clustering and predictive analysis on reservoir data.
- Built predictive models (e.g., **Random Forest**) to forecast gas-oil ratios and identify geologic zones.
- Conducted **hierarchical clustering** to classify oil reservoirs by petrophysical attributes.
- Designed custom simulators and tools (C++, VBA, Java) for reservoir analysis
- Integrated ML with domain-specific engineering simulation (e.g., pressure modeling, Enhanced Oil Recovery assessments).
- Created **MS Access** databases and many SQL queries

**University of Pittsburgh – Software Programmer Analyst** *Pittsburgh, PA | Nov 1996 – Sep 1997*

- Created genetic data preprocessing software in **C/Unix** for medical research studies.

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## Education

**M.S. – Information Science**, University of Pittsburgh: Focus: Cognitive Science, HCI, Data Structures, Telecommunications

**B.S. – Petroleum Engineering**, Pennsylvania State University

**Online Coursework (34+ ML/Data Science Courses)**

- Topics include Regression, Neural Networks, NLP, Classification, SVM, Data Visualization
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### Highlighted Projects

- **ML for Reservoir Analysis:** Applied machine learning to reservoir datasets to cluster similar formations and predict reservoir characteristics.
- **Embedded ML in Web Apps:** Delivered interactive ML tools using Pyodide and JavaScript for scientific and engineering analysis.
- **Simulation & Prediction Tools:** Created petroleum engineering simulators and analytics dashboards using **Python, C++, and Excel/VBA, Matplotlib.**