Angela Davis

Data Scientist

Maryland Heights, MO
(314) 761-3745
angela.cf.davis@gmail.com
acfdavis.github.io
angela-c-davis2
acfdavis

Discovery through science, data, and collaboration.

Summary

Senior Data scientist and materials informatics engineer with 13+ years translating complex datasets into actionable decisions. Built reproducible data pipelines, engineered features, and developed predictive models that delivered measurable savings, throughput gains, and sustainability impact. Principal Investigator on $13M in R&D. Recognized Boeing Designated Expert; published and patented; comfortable presenting to executives & cross-functional stakeholders.

Core Skills

Python (pandas, scikit-learn, TensorFlow, PyTorch, SHAP) | SQL | ETL & data pipelines | Dashboards/visualization (Streamlit, matplotlib, JMP, Tableau) | Cloud exposure (Azure) | Data quality & storytelling | Geospatial analytics | EDA & statistical modeling (regression, classification, tree-based, Bayesian)

Professional Experience

Sept 2025 – present **Climatebase Fellow**, *Climatebase*, Remote
- Selected through a competitive process into Cohort 8 of Climatebase Fellowship.
- Applying data science & AI/ML to climate and sustainability capstones. Collaborating across disciplines to deliver demoed solutions.

Jan 2025 – present **Independent Projects & Professional Development**, Remote
- Building open-source, production-style analytics projects demonstrating pipelines, validation, & interactive reporting.
- Completing certifications and trainings on Data Science, Python, SQL, Tableau, Azure, Gen-AI.
- Developing independent AI/ML projects in Python (GitHub: acfdavis). Focus on reproducible AI/ML pipelines, geospatial modeling, deep learning, FAIR data workflows, & sustainability-focused modeling.

Aug 2011 – Jan 2025 **Associate → Experienced → Senior Materials & Process Engineer / Data Scientist**, *Boeing*, St. Louis, MO & Seattle, WA
- Developed automated ETL/validation & reporting (JMP/JSL) across a 9-organization consortium, cutting physical testing 85%, saving $700K, & reducing schedules 30%.
- Collaborated to develop manufacturing processes via DOE, EDA, statistical analysis, reporting, & stakeholder communication, enabling $22M/year savings, rate/weight improvements and qualification.
- Built JMP/JSL analysis pipelines enabling coatings to open new market segments that drove 99% performance gains, 65% VOC reduction, $1M savings, and 75% flow-time reduction.
- Co-authored peer-reviewed work (Scientific Reports) using statistical modeling; presented results at company-wide conference.
- Delivered software combining COMSOL/FEM + geospatial solar-heating model with Java automation.
- Directed international team of 10+ members developing novel chemistry resulting in 50% adhesion improvement, >$400K cost avoidance, and patent (US20240175768A1).
- Mentored 14+ engineers & 3 university capstone projects; Boeing Designated Expert and Technical Lead Engineer; developed technology roadmaps and strategy.

Education

Aug 2011 **MS** Materials Science, University of California, Santa Barbara

May 2010 **BS** Chemical Engineering, University of California, Santa Barbara

Selected Publications & IP

Publications Scientific Reports (2021); Journal of Applied Microbiology (2024)

Patents US20240175768A1 (adhesion promoter)