Azin Faghihi

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Objective

I'm a Data Scientist interested in understanding people—what shapes their behavior, how they respond, and why. I enjoy creating visualizations that are clear, minimal, and thoughtfully designed. Out of curiosity, I've explored personal data like my movie ratings and blood test results. With a background in Mechanical and Software Engineering, I like combining structure and creativity to make sense of complex data.

Experience

McCombs School of Business
September 2024 – June 2025
Post Graduate Program in AI & ML: Business Applications — *UT Austin - Online*

- Stock Market News Sentiment Analysis and Summarization (NLP): *Built an AI-driven system to extract and summarize market sentiment from news articles using LLMs, Transformers, Prompt Engineering, and text preprocessing.*
- Plant Seedling Classification (Computer Vision): *Built an image classifier to distinguish plant seedlings and weeds using TensorFlow, image processing, and transfer learning.*
- Bank Customer Churn Prediction (Neural Networks): *Developed an artificial neural network from scratch to identify high-risk churn customers using TensorFlow, and Keras.*
- Credit Card User Churn Prediction (ML): *Built a predictive model to classify churn behavior using Random Forest, Bagging, Boosting, SMOTE, and hyperparameter tuning.*
- Personal Loan Campaign (ML): *Analyzed customer attributes and built a decision tree model to predict loan acquisition likelihood and guide marketing strategies.*
- FoodHub: *Performed EDA using NumPy, Pandas, and Seaborn to uncover demand patterns in cuisines and restaurants, and provided business recommendations.*

Data Scientist
Winter 2022 – June 2025
Amida Technology Solutions — *Washington, DC*

- Automated veterans' hospitalization report processing using Python, Toad for Oracle, SQL Server, AzureML, and PySpark.
- Generated synthetic EHR data and built a visualization module on i2b2 to compare real vs. synthetic data.
- Analyzed time series data in Python using Meta Prophet and ARIMA.

General Assembly
Summer 2021
Data Science Bootcamp — *Washington, DC*

- Applied Python for data analysis, visualization, and machine learning using NumPy, Pandas, Seaborn, SQL, AWS, web scraping, Git, Scikit-learn, & TensorFlow.

Software Engineer
Winter 2015 – Summer 2021
Netfreedom Pioneers - Knapsack for Hope — *Los Angeles, CA*

- Built an end-to-end automated content management system:
  - Developed platform-specific scrapers for diverse sources and formats.
  - Built a metadata search engine and integrated Google Cloud and Dropbox API.

Data Scientist
Summer 2014
USC Information Sciences Institute (ISI) — *Marina del Rey, CA*

- Performed network analysis of Twitter users using contextual clustering and collaborative filtering.

Graduate Student Researcher
Fall 2009 – Fall 2014
UCLA Beam Control Laboratory — *Los Angeles, CA*

- Evaluated aero-optical wavefront prediction models by comparing experimental data with simulation results.
- Developed a state-space identification method using optimal and adaptive lattice filters for dynamic systems.
- Analyzed optical wavefront flow using spatial and temporal cross-correlation of image data.

Graduate Teaching Assistant
Fall 2008 – Spring 2009
UCLA, Mechanical Engineering Department — *Los Angeles, CA*

- Recitation sessions for Thermodynamics and Dynamics courses.

Undergraduate Researcher
Summer 2004
UC Berkeley, NSF REU Fellowship — *Berkeley, CA*

- Analyzed how surface roughness impacts the effective elasticity of MEMS devices.

Education

2025 Post-Graduate Program in AI & ML
University of Texas at Austin
McCombs School of Business

2014 Doctor of Philosophy
University of California, Los Angeles (UCLA)
Mechanical Engineering
Systems & Control Major
Adaptive Optics Field

2009 Master of Science
University of California, Los Angeles (UCLA)
Mechanical Engineering

2006 Bachelor of Science
University of California, Berkeley (UC Berkeley)
Mechanical Engineering
Theater & Performance Studies Minor

Selected Courses

Certificates	Time Series Analysis, Forecasting, & ML Applied Data Science with Python Applied Social Network Analysis in Python Applied Text Mining in Python R Programming Machine Learning
PhD Courses	Probability in Dynamical Systems Stochastic Processes & Estimation Linear Dynamic Systems, Real Analysis Linear Optimal Control Process Control: Nonlinear Systems

Technical Skills

Languages & Scripting:	Python, R, MATLAB, Ruby, JavaScript, HTML5, CSS, Bash
Libraries & Frameworks:	TensorFlow, Keras, Scikit-learn NetworkX, Ruby on Rails, Django
Data & Visualization:	Pandas, NumPy, Matplotlib, Seaborn, Gephi, LaTeX
Big Data & Cloud:	Spark, PySpark, Hadoop, AWS (S3, EC2, RDS), GCP (App Engine, Compute Engine, Datastore), AzureML, Heroku
Databases & Tools:	MySQL, Oracle, Microsoft SQL Server, Toad for Oracle
APIs & DevOps:	Google Drive, YouTube, Twitter, Dropbox, Git, Docker

Interests

Computational Social Science
Human Cognition
Natural Language Processing
Photography
Social Psychology
Consumer Modeling
Web Analytics
Improv