Jane Zou

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EDUCATION

University of California, Los Angeles
Statistics & Data Science, Bachelor of Science   GPA: 3.91/4.00

PROFESSIONAL EXPERIENCE

PricewaterhouseCoopers (PwC)   Irvine, CA
Data Scientist   *June 2023 - August 2024*
- Built a Streamlit frontend and FAST API backend integrated with Azure Form Recognizer, utilizing Python, and Docker to achieve over 99% accuracy and reduce processing time from 10 hours to under 2 minutes.
- Enhanced predictive ML model accuracy by 20% through demographic profiling and NLP using Scikit-learn and NLTK.
- Boosted user engagement and digital service quality for a career exploration nonprofit by developing a Python chatbot in 3 weeks and leveraging Tableau, Plotly, and Python for data visualizations.

Jules Stein Eye Institute   Los Angeles, CA
Data Scientist   *May 2023 - June 2024*
- Co-authored six papers in the American Glaucoma Society and Ophthalmology Journals, utilizing advanced AI analytics with R and Python on extensive datasets to advance glaucoma research and treatment strategies.
- Automated visual field detection systems by integrating over 30 years of patient data, enhancing diagnostic precision by 40%.
- Increased model reliability by 30% through rigorous parameter optimization and iterative testing, improving decision-making accuracy.
- Enhanced healthcare datasets by combining NHANES and CDC data, refining inclusion criteria to reduce noise by 25%, and performing statistical analyses that improved health assessment accuracy by 15%.

American Express   Los Angeles, CA
Lead Machine Learning Engineer   *June 2022 - April 2023*
- Analyzed consumer campaign data to calculate arrival probabilities, optimizing resource allocation and identifying high ROI consumers, resulting in an 80% increase in campaign effectiveness.
- Led a team of three in developing a supervised learning end-to-end ML pipeline, enhancing data insights for over 10.4 million financial records and improving model accuracy by 30%.
- Expert in using Pandas, NumPy, and Scikit-learn for developing and debugging high-accuracy models, including decision trees, neural networks, and random forests, within Jupyter Notebook.

LEADERSHIP

Sustainable Los Angeles Grand Challenge   Los Angeles, CA
Principal Investigator   *September 2023 - June 2024*
- Developed predictive ML models in Python, enhancing transportation needs assessments and infrastructure effectiveness by 35%.
- Analyzed datasets from LA Metro and CalEnviroScreen, providing insights that influenced decisions impacting 5 million residents.
- Authored a 30-page report and presented findings to LA representatives, shaping transportation and public policy decisions with implications for $50 million in funding.

DataResolutions   Los Angeles, CA
Senior Strategy Consultant   *Oct 2021 - June 2024*
- Developed knowledge graphs from NextJS data using Python scraping techniques and NetworkX, visualizing over 100,000 data points.
- Led a team of five in creating an end-to-end ML pipeline for IoT data processing and analyzing data from 500,000+ sensors, resulting in a 25% improvement in actionable insights.
- Analyzed financial and merchant datasets with random forest models using Scikit-learn, identifying spending patterns across $1 billion in transactions, which enhanced decision-making by 40%.
- Performed web scraping and HTML parsing on Zillow with Python, extracting and analyzing data from 10,000+ real estate listings to reveal critical market trends affecting property values.

Innovation Challenge, Young Tech Professionals Bootcamp   Los Angeles, CA
Product Manager, Developer   *Mar 2022 - May 2023*
- Coordinated user research and competitive analysis, designed wireframes in Figma, and implemented user-centric design solutions, resulting in a 50% improvement in platform usability.
- Translated business objectives into design solutions, leading to a 40% increase in user engagement and a 35% better market alignment through strategic design and research.
- Facilitated the development of a user-friendly platform for young adult job seekers, applying design thinking principles to address complex challenges, resulting in a 30% increase in user satisfaction and a 25% boost in platform adoption.

SKILLS

- **Programming & Development:** Python, R, Java, C#, C++, SQL, Bash, React, HTML, CSS, JavaScript, TypeScript, Flask, FastAPI, Docker, VSCode, PyCharm, Vim, Jupyter Notebook, RStudio
- **Data Management & Processing:** NoSQL, Object Stores, ETL/ELT, Data Cleansing, Feature Generation
- **Machine Learning & Analytics:** Scikit-learn, PyTorch, TensorFlow, Keras, NLTK, FastText, Gensim, NLP, Computer Vision, Audio
- **Data Visualization & Reporting:** PowerBI, Streamlit, D3, Plotly, Seaborn, Matplotlib
- **Tools & Platforms:** Hadoop, Spark, Databricks, Kafka, Agile, Azure DevOps, Jira, Confluence, GitHub, Azure Pipelines, Postman