Tianji Li

805-869-9039 | tianji3201@gmail.com | Personal Website

EDUCATION

Duke University, Durham, North Carolina
Master of Science (M.S.) in Electrical & Computer Engineering – Software Engineering Track August 2025 – August 2027
Relevant Courses: Software Engineering, Operating Systems, Large-Scale Data Systems, Cloud Computing, Software Reliability, Secure Software Systems, Database Systems, Distributed Systems, Machine Learning for Software Engineering

University of California, Santa Barbara (UCSB) **Cumulative GPA: 3.73 (4.0 scale)**
Bachelor of Science (B.S.) Statistics & Data Science (Dean's List) September 2020 – September 2024
Minor in Japanese
Relevant Courses: Time Series, Statistical Machine Learning, Regression Analysis, Real Number Analysis, Stochastic Process, Sampling Techniques, Design and Analysis of Experiments, Data Science Concepts and Analysis, SAS, R, Python, C++

EXPERIENCE

Microsoft, Onsite June 2023 – September 2023
Software Engineer Intern
- Designed and implemented a Python-based validation program to automate AI workload tests, reducing manual effort by over 50%.
- Integrated daily build testing results into Prometheus, saving 10+ team hours weekly through early malfunction detection.
- Optimized build process by addressing complex dependencies, reducing dependency-related errors by 20%.
- Collaborated with cross-functional teams to refine the AI workload testing plan, achieving seamless integration into processes.
- Streamlined test result processing, cutting integration time into Prometheus by approximately 40%.

ISoftStone, Onsite June 2022 – September 2022
Software Engineer Intern
- Streamlined digital asset management workflows, enhancing content retrieval and storage efficiency by approximately 20%.
- Automated data extraction pipelines utilizing Python libraries (Selenium, Requests), ensuring high accuracy and reliability.
- Engineered advanced predictive models with PyTorch (CNN, RNN), achieving a ~15% improvement in forecasting precision.

PROJECTS

Job Placement Prediction Using Machine Learning Models, UCSB PSTAT131 August 2024 – September 2024
Individual Researcher and Programmer
- Conducted EDA on Kaggle job placement data, identifying key predictors such as academic performance and specialization.
- Preprocessed data using advanced cleaning, feature engineering, and encoding techniques, improving model reliability by 15%.
- Optimized five machine learning models—Logistic Regression, Random Forest, Gradient Boosted Trees, Elastic Net, and Support Vector Machines—achieving predictive accuracy of more than 90%.
- Applied grid search and k-fold cross-validation, enhancing model robustness and reduced overfitting by 10%.
- Delivered actionable insights into employment trends, supporting data-driven strategies for improving post-graduate outcomes.

Post-Pandemic Mobility Analysis Using Time-Series Methods, UCSB PSTAT174 April 2024 – June 2024
Individual Researcher and Programmer
- Conducted a comprehensive analysis of post-pandemic mobility trends and uncovered sector-specific patterns in retail, transit, etc.
- Developed SARIMA models and conducted Spectral Analysis to identify seasonal trends, improving forecasting accuracy by ~20%.
- Provided actionable insights on COVID's effects on mobility, contributing to urban resilience and public health response strategies.

Analysis of Global Happiness Trends and Economic Indicators, UCSB PSTAT100 June 2023 – August 2023
Project Team Leader
- Analyzed the World Happiness Report 2023 dataset and identified a 30% correlation between GDP and happiness in all Dev. levels.
- Conducted data tidying, NA analysis, and missing value handling to ensure data integrity, improving analysis reliability by 20%.
- Employed PCA, regression modeling, and various visualizations to uncover trends in happiness indices and healthy life expectancy

AWARDS

- Mochizuki Memorial Fund Award (Outstanding Academic Achievement), UCSB 2024
- Inductee of 2024-2025 Japanese National Honor Society College Chapters 2024
- Japanese Excellence Award 2022, 2023, 2024

SKILLS

- **Technologies:** C, C++, R, SAS, Python, Microsoft Suite
- **Python/R Libraries**: Numpy, PyTorch, Pandas, Matplotlib, Seaborn, Scipy, Jupyter, Dplyr, GGPLOT2, RSQLite, Tidymodels
- **Languages:** English (Proficient), Mandarin (Native), Japanese (Proficient)