Zeying Li

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Education

University of California, Davis   *Expected: May 2026*
B.S. in Computer Science, B.A. in Economics,Minor in Statistics
GPA: 3.6/4.0

Relevant Coursework

- **Computer Science:** ECS 036C (Data Structures), ECS 050 (Machine-Dependent Programming), ECS 120 (Theory of Computation), ECS 122A (Algorithm Design and Analysis), ECS 132 (Prob & Stat Models for CS), ECS 140A (Programming Languages), ECS 152A (Computer Networks), ECS 154A (Computer Architecture), ECS 170 (Artificial Intelligence), ECS 171 (Machine Learning)

- **Economics:** ECN 100A/B (Intermediate Micro Theory), ECN 102 (Analysis of Economic Data), ECN 141 (Economic & Financial Forecasting), ECN 142 (Economics & Business Data)

- **Statistics:** STA 106 (Analysis of Variance), STA 131A (Probability Theory), STA 141A (Statistical Data Science)

Skills

- **Programming:** Python, Java, C++, C, Haskell

- **Technologies:** Git, LaTeX, HTML, JavaScript

- **Statistics:** Time Series, Probability, Regression, ANOVA

- **Economics:** Microeconomics, Macroeconomics, Game Theory, Economic & Financial Forecasting, Economics & Business Data Analytics

- **Soft Skills:** Teamwork, Communication

Projects

OKKI System for Automotive Sales Company (Ongoing)

- **Objective:** Improve customer management and operational efficiency for an automotive sales company by implementing Alibaba's **OKKI** intelligent business platform.

- **Context:** OKKI provides a rich set of products/services, powerful data resources, and data-driven decision capabilities.

- **Technical Service Responsibilities:**

  1. Completed vendor-led training to ensure a comprehensive understanding of OKKI functionality and product value.

  2. Created user accounts for all company personnel, assigning permissions and leading training sessions to ensure adoption.

  3. **Intelligent Feature Extensions:**

     - **AI Predictive Models:** Integrated Xiaoman CRM's AI module (e.g., OKKI AI) to develop sales forecasting and customer-churn warning models. For example, trained regression models on historical transaction data to predict quarterly sales and generate risk alert reports.

- **Natural Language Generation (NLG):** Enhanced reporting with automated textual interpretations, enabling AI to convert data charts into concise business insights (e.g., "In Q3, sales in the East China region increased by 12% quarter-over-quarter, primarily driven by new customers.")

4. Gathered real-time feedback to resolve usage issues and maintain stable operation across teams.

5. Documented best practices and transferred knowledge internally and to the supplier.

Agent-Based Simulation of Prisoner's Dilemma (2025)

- **Implementation Language:** Java (MASON toolkit).

- Built an agent-based model to study cooperation vs. defection under varied payoff structures, mutation rates, and grouping behaviors.

- Experimented with naive, walkaway, Tit-for-Tat, and Pavlov strategies, recording population changes over time.

- Showed how partner selection, memory-based retaliation, and negative sucker's payoff can sustain cooperation against defectors.

- Analyzed how mobility, resource constraints, and memory size impact long-term strategy dominance.

Predicting House Prices Using Property & Location Features (2025)

- **Implementation Languages:** R Studio & Python.

- Analyzed a 21K+ record dataset of King County, WA home sales to forecast sale prices.

- Compared performance of polynomial OLS, LASSO, and regression trees on an 80-20 train-test split.

- Achieved best results with polynomial expansions in OLS, capturing nonlinearities in square footage, grade, and bathrooms.

Predicting Happiness Level (2024)

- **Implementation Languages:** R Studio & Python.

- Built multiple regression models (Lasso, Ridge) to analyze factors of student happiness.

- Used data visualization and cross-validation; improved interpretability and accuracy.

Automated Acoustic Monitoring of Rainforest Biodiversity (2024)

- **Implementation Languages:** Python & C++.

- Deployed deep learning (EfficientNet, ResNet-50) to classify bird/frog species in noisy audio.

- Built a web app for real-time species monitoring to inform conservation decisions.

Predicting Salaries Using Machine Learning (2024)

- **Implementation Languages:** R Studio & Python.

- Developed salary predictors (Linear, Lasso, Ridge, Random Forest) with feature engineering.

- Created a web-based interface; identified Ridge regression as most accurate.

Extracurricular

UC Davis Go Club (Founder/Advisor, Oct 2024–Present)

- Organized events and competitions; fostered strategic skill development among members.

UC Davis MusicCow (Guitar Player, Sep 2022–Present)

- Performed at public concerts; collaborated on musical arrangements.