MICAYLA D. FONG

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EDUCATION

University of Southern California   May 2022-May 2026
Bachelor of Science in Computer Science and Business Administration
- Viterbi School of Engineering: GPA: 3.44 / 4.0

ACADEMIC PROJECTS

Research, Data Analytics for Special Topics: Baseball Metrics, Los Angeles, CA   February 2025-April 2025
- Cleaned and transformed raw historical baseball datasets spanning 120 years, standardizing metrics and handling missing values to ensure consistency while avoiding selection bias in statistical analysis
- Performed linear regression analysis in R to determine statistically significant relationships between home game ratios and 8 other variables such as ERA, runs scored, and walks allowed
- Reduced dataset dimensionality using PCA and applied K-means clustering to uncover distinct team performance profiles
- Applied Anova tests to validate statistical differences across clusters, supporting deeper exploration into strategic implications of gameplay styles
- Developed a Tableau dashboard with graphs and visualizations to illustrate statistical relationships, enabling clear communication of performance patterns and findings to technical and non-technical audiences

Developer, Finance Web Application for College Students, Los Angeles, CA   August 2024-November 2024
- Developed full stack group expense tracking and management application using Spring Boot for backend services and React for frontend
- Coordinated an iterative development process to build, test, and debug features such as expense splitting, payment settling, and budgeting, utilizing Jira to manage tasks and track progress among team members
- Designed a MySQL database structure, including tables for users, groups, expenses, payments, and notifications, ensuring efficient data handling and retrieval through rigorous testing and optimization
- Leveraged knowledge from finance and accounting coursework to implement app logic, utilizing unit testing to validate functionality and debug issues in real time
- Collaborated with cross functional teams to ensure seamless integration between frontend and backend components, employing logging frameworks to identify and resolve issues throughout development lifecycle

LEADERSHIP AND INVOLVEMENT

Undergraduate Research Assistant, Trojan Sports Research Lab, Los Angeles, CA   July 2025-Present
- Collaborating in a data analytics project on the economic impact of Olympic host cities; responsible for data collection, manipulation, and analysis to extract insights and facilitate data driven decision making
- Engaging in data collection phase ensuring accuracy, consistency, and organization of data to create meaningful analysis
- Contributed to a scientific abstract as an author aiming to characterize the physical performance profile of female baseball players and identify key areas for performance enhancement and injury prevention

EXPERIENCE

Patient Care Advisor   May 2025-September 2025
Lens Crafters, Corte Madera, CA
- Conducted pre-examination testing with precision for 20 patients a day, developing ability to articulate technical procedures and measurements for non technical audiences, strengthening patient understanding and trust

TECHNICAL SKILLS

Languages: (Basic in) C++, Java, SQL, HTML/CSS, Python (Learning) R, JavaScript
Skills: Tableau, Git Version Control, Data Visualization, Excel, Statistical Analysis, Jira, Data driven decision making, Finance, OOP, Data Structures, Algorithm Design, Computational Theory, Discrete Math, Calculus, Linear Algebra, Marketing, Business Comm., Micro and Macroeconomics, Accounting Basics, Software Engineering Processes

RELEVANT COURSEWORK

Statistical Computing and Data Viz: R, Python, Tableau, Software Engineering, Algorithms and Theory of Computing, Applied Business Statistics, Data Structures and Object Oriented Design, Linear Algebra and Linear Differential Equations, Discrete Methods in Computer Science, Finance, Accounting