

# Kelly Ma

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## EDUCATION

### University of California, Riverside

September 2023 - June 2027

*B.S. in Computer Science*

*Riverside, California*

Relevant Coursework: Data Structures & Algorithms, Discrete Structures, Software Architecture & Design

## EXPERIENCE

### Artificial Intelligence Fellow

May 2025 - Present

*Break Through Tech AI at Cornell Tech*

*Remote*

- Developing a real-world ML solution for a partnering company through an AI Studio Project, including data pipeline development, model training, and stakeholder presentations.
- Boosted F1-score by 12–18% with ensemble and deep learning models on benchmark datasets.
- Built ML workflows with KNN, decision trees, and logistic regression; achieved 85% macro F1 on real-world data.
- Completed 8+ applied ML projects using CRISP-DM for data prep, feature engineering, training, and evaluation.

### Undergraduate Research Assistant

October 2024 - December 2024

*University of California, Riverside (UCR)*

*Riverside, California*

- Analyzed research on AI-generated code detection in CS education, identifying gaps and proposing new strategies.
- Applied NLP techniques and transformer models via HuggingFace for code and text classification.
- Collaborated weekly with faculty and Ph.D. mentors to refine methodology and interpret findings.
- Continuing AI/ML research through a funded research fellowship (REU) starting Fall 2025.

### Web Developer

October 2023 - March 2024

*Association for Computing Machinery at UCR*

*Riverside, California*

- Constructed responsive websites for 2 student organizations using React.js, Next.js, and Tailwind CSS, improving access to club resources and events for 50+ members per org.
- Identified recurring production inconsistencies caused by hardcoded event data; implemented dynamic component generation, removed 250+ lines of redundant code, and initiated a broader cleanup across the codebase.
- Improved navigation and accessibility by integrating a Footer component with contact info and social links.
- Coordinated with 8–9 developers in weekly Agile scrums to prioritize features and enhance mobile responsiveness.

### Coding Instructor

March 2025 - April 2025

*Whizara*

*Riverside, California*

- Led week-long Scratch programming camp for 15 sixth graders, teaching foundational coding concepts.
- Mentored all students on building an Asteroid Game using event blocks, variables, and control structures.
- Increased student engagement through live demos and 1:1 debugging support; 100% project completion rate.

## PROJECTS

### Cave Adventure RPG

[github.com/kellyma626/rpg-cave-game](https://github.com/kellyma626/rpg-cave-game)

*C++, GitHub, GitHub Actions, GDB, Valgrind, GoogleTest*

*October 2024 - December 2024*

- Created abstract Item, Potion, and Weapon classes to support item behavior in a game for a team course project.
- Engineered a vector-based inventory system with dynamic memory management and polymorphism.
- Ensured code quality via 20+ unit tests with GoogleTest, CI using GitHub Actions, and debugging/profiling tools.

### BearCare

[devpost.com/software/bearcare](https://devpost.com/software/bearcare)

*React.js, Next.js, Tailwind CSS, GitHub*

*April 2024*

- Built frontend UI for a hospital-locator app, enabling users to filter by insurance provider in emergency scenarios.
- Designed insurance plan filter buttons for quick user selection; shipped MVP in a 24-hour team hackathon.

## TECHNICAL SKILLS

**Languages:** Python, C++, JavaScript, HTML/CSS

**Frameworks:** React.js, Next.js, Tailwind CSS

**Libraries:** NumPy, Pandas, scikit-learn, Matplotlib, Seaborn, HuggingFace, PyTorch

**Tools:** GitHub, GitHub Actions, GDB, Valgrind, GoogleTest