

ZACHARY KAPLAN

SOFTWARE ENGINEER

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EDUCATION & ATHLETIC EXPERIENCE

- Pomona College, Claremont, CA**
- Major **Computer Science**, Minor **Economics**
 - 3.78 GPA(Unweighted)
 - Division III Men's Water Polo Champion 2021
 - Pomona-Pitzer Mens Water Polo 2021-2024
 - Academic All American 2021, 2022, 2023, 2024
- The Hill School, Pottstown, PA - High School Diploma 2021**
- 3.95 GPA(Unweighted)/4.46(Weighted)
 - Academic All-American 2019, 2020
 - Nominated team captain 2020-2021 by all teammates

RELEVANT COURSE WORK

- Usable Security and Privacy**
- Conducted a user study on LLMs' ability to improve privacy policy transparency.
- Artificial Intelligence**
- Developed search algorithms(Breadth-first, Depth-first search, Best-first search, Greedy best-first search A*) and heuristics in a virtual environment.
- Algorithms(CS140), Computer Systems(CS105), Game Development, Artificial Intelligence, Data Structures(CS64), Econometrics(Econ167)

OTHER COURSES

PROFESSIONAL EXPERIENCE

- TERRAPIN REWARDS** Lead full-stack web developer 2025-present
- Developed a full-stack customer loyalty platform using React 19, TypeScript, and Supabase (PostgreSQL + PostGIS), enabling local businesses to engage customers through QR check-ins and points-based rewards
 - Designed and implemented custom SQL schemas with row-level security (RLS) and rate limiting, supporting secure multi-tenant architecture for business and customer accounts
 - Built interactive analytics dashboards with real-time updates, Square API payment integration, and MapLibre GL maps, streamlining business operations and improving customer retention visibility
- MINDSPROUT.AI**
- Integrate the LLM model(Claude 3.5) into the product.
 - Set up back-end infrastructure using containerization.
- MYNETDIARY INC** Intern- Marlton, NJ 2020-2020, 2021-2021
- Analyzed, documented, and reported data to the principal developer.
 - Compared application functions and features to those of other competing websites.
 - Provided developers with vital information to further improve their products.

SOFTWARE PROJECTS

- Crypto Price Tracker**
- Built a full-stack TypeScript application using Next.js and Node.js to stream live crypto prices from via Playwright automation.
 - Designed scalable resource sharing system for Playwright instances and dynamic ticker management with real-time price updates.
- Custom Cross-Validation Framework for Panel Data**
- Built a Python-based cross-validation generator to prevent temporal and cross-sectional leakage in ML model evaluation.
 - Implemented a full data preprocessing, feature engineering, and model training pipeline in Google Colab using Pandas, Scikit-learn, and XGBoost.
- 3D Runner- Space Race**
- Developed using C# and Unity Engine. Collaborated with group members on Github.
 - Implemented physics-based wall-jumping mechanics and dynamic obstacle generation system for endless runner gameplay.
 - Engineered collision detection and player movement controls with gravity-shifting between perpendicular surfaces.

SKILLS Python, Java, JavaScript, Typescript, SQL, Bootstrap, React, C++, C#, HTML, CSS, Unity Engine, Team Collaboration, Communication, Django, Go, Bash, Haskell, Git