Arya Sadeghi
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Education

University of California- Santa Barbara *Graduation Date: June 2027*
Bachelor of Science (B.S.) in Computer Science | GPA: 3.86/4.00

- **Relevant Coursework:** Data Structures & Algorithms, Linear Algebra, Discrete Mathematics, Probability & Statistics

Experience

Software & IT Support *Simi Valley, CA*
SimiCare Medical Group *June 2025 – Sep 2025*

- Redesigned the clinic website with modern responsive layouts and clearer navigation, improving user engagement by ~25% after launch.
- Automated patient reminder emails and follow-up messages, saving the staff ~3–4 hours of manual outreach per week.
- Authored a troubleshooting guide for recurring IT issues, enabling non-technical staff to resolve most problems independently and reducing repeat requests by ~30%.

Software Engineering Intern *Los Angeles, CA*
Mammoth Media *June 2023 – Aug 2023*

- Collaborated with a 15-member engineering team to refine and ship user-facing features for a high-traffic media platform.
- Enhanced front-end performance and responsiveness by optimizing JavaScript components and streamlining UI workflows.
- Participated in code reviews and agile sprints, improving code quality and aligning feature delivery with product deadlines.

Research

Undergraduate Research - ERSP | UCSB *Sep 2025 - Present*
Undergraduate Researcher (Algorithmic Fairness)

- Designing algorithms for EF1/EFX allocations on graph-structured indivisible goods; formalizing the model, analyzing existence/tractability conditions, and implementing baseline EF1 procedures to generate empirical benchmarks.
- Conducting literature review on fair-division theory (EF1, EFX, valuation models) to inform conjectures and guide experimental design across randomized graph families.

Projects

NBA Fantasy Draft Optimization Tool *Sep 2025*

- Engineered an NBA fantasy draft optimizer that analyzes 5 seasons of player data (~3k rows, ~1k players) to deliver real-time draft recommendations.
- Reduced prediction error by 30% compared to using prior-year stats through regression models and Monte Carlo simulations across 1,100 player-seasons.
- Built an end-to-end pipeline (data cleaning, feature engineering, model training, and simulation) and deployed with a Flask API + React UI for seamless use in live draft scenarios.

Leadership & Extracurricular Activities

Project C.A.R.E | UCSB *Oct 2025 - Present*

- Leading technical efforts across site redesign, analytics instrumentation, and automation pipelines, improving update speed and visibility into engagement metrics.

Robotics Team | UCSB *Jan 2025 - Present*

- Decreased decision-making latency of autonomous control algorithms by 30-50 milliseconds by optimizing code, leading to a ~15% increase in the autonomous phase score during VEX Robotics competitions.

Skills

Languages: C++, C, Java, Python, JavaScript, R/R Shiny, SQL

Technologies/Frameworks: Git, React, Flask, Pandas, NumPy, scikit-learn, Matplotlib, Bokeh, HTML, CSS