

# ROHAN UDUPA

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## Education

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**California Polytechnic State University - San Luis Obispo**

**September 2023 – June 2027**

*Bachelor of Science in Software Engineering*

*San Luis Obispo, California*

## Relevant Coursework

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- Data Structures
- Discrete Structures\*
- Honors Calculus 3
- Linear Analysis I\*
- Computer Organization\*
- OOP and Design\*
- Honors Calculus 4\*

## Software Experience

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**Graphics Numerical Hardware Intern**

**May 2022 – August 2022**

*Intel Corporation*

*Folsom, California*

- Nominated for a Ph.D. research internship via a complex mathematical-based examination.
- The paper sought to quantify the probability of a computer triggering catastrophic binary floating point rounding error.
- Analyzed and calculated regrouping and exchanging binary calculations to identify and record arithmetic patterns.
- Evaluated eight case Karnaugh Map expressions and explored any hidden patterns.
- Incorporated scripts using Python and Selenium to aggregate 6 variable binary sum of product calculations.
- Obtained authorship to the research paper that sought to educate the broader CS/mathematical community.
- Directly contributed to optimizing Intel CPU and GPU performance.

## Open Source Contributions

**February 2022 – Present**

**Global Quake:** Software tracking global earthquake data and deploying early warnings using public stations

- \* Developed front-end systems of the database manager and suggested/implemented user experience improvements.
- \* Currently spearheading the development of a search bar navigation feature to allow easier globe/station traversal.

**Apache Streampipes:** A self-service industrial toolbox used to connect, analyze and explore data streams

- \* Updated download documentation and website to provide a more seamless installation experience.
- \* Currently working on developing a new processor to convert Datetime values to Strings.

**Java CV:** A Java wrapper for the computer vision library (7K+ users)

- \* Refactored documentation to include installation and setup instructions for the VS Code IDE.

**JReleaser:** A Java automation tool used to quickly and easily publish artifacts to package managers

- \* Implemented predefined function and tackled assigned bug fixes.

## Work Experience

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**Curriculum Developer and Teacher Volunteer**

**July 2022 – July 2023**

*AiGoLearning*

*Folsom, California*

- Obtained certificate of teaching and instructed two classes of Algebra and Pre-Algebra over a 16-week period.
- Collaborated with a group of curriculum developers for four weeks to create a new Algebra and Pre-Algebra curriculum.
- Drafted tests, assignments, PowerPoint presentations and homework assignments for students.

**Center Soccer Referee**

**August 2019 – May 2022**

*US Soccer Federation*

*Folsom, California*

- Oversaw all aspects of a youth recreational soccer game.
- Facilitated communication between two assistant referees to enforce laws of the game.

**General Merchandise Employee**

**Summer 2021**

*Target Corporation*

*Folsom, California*

- Systematized merchandise with the store and assisted shoppers within the store.

## Technical Skills

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**Languages:** Python, Java, C++

**Developer Tools:** VS Code, Git, Selenium, Docker

**Technologies/Frameworks:** GitHub, Blender, Photoshop, Unreal Engine

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\* - Courses that I plan to complete by the end of the school year