

# Jay Rajesh

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## EDUCATION

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### California Polytechnic State University

Bachelor of Science, Computer Engineering; GPA: 4.0/4.0

San Luis Obispo, CA

Expected May 2027

### Bellarmino College Preparatory

GPA (Unweighted): 3.9/4.0

San Jose, CA

## EXPERIENCE

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### BEACoN Research Scholar | Python, C++, ROS2

Cal Poly College of Engineering

Nov 2024 – Present

San Luis Obispo, CA

- Developed an ML-integrated navigation software for the Clearpath Turtlebot4, enabling joystick control and autonomous movement with ROS2.
- Designed a deep learning model in Python to improve the robot's motion accuracy by gathering and pre-processing navigation dataset.
- Used C++ to deploy deep learning model into ROS2 navigation stack, aimed at low-level motion control.
- Documented findings and collaborated through GitHub for effective project management.

### Undergraduate Research Intern | Python

Cal Poly College of Engineering

Sep 2024 – Present

San Luis Obispo, CA

- Utilized Python to preprocess, extract, and model time-series data from Continuous Glucose Monitors (CGM) for predictive analysis in Human Activity Recognition (HAR) applications.
- Applied Random Forest and LSTM models to predict glucose levels from activity data, improving prediction accuracy by 16%.
- Sourced, cleaned, and validated datasets, optimizing input quality for ML models to enhance reliability.

### Co-Founder | Node.js, MySQL

WeClass

Feb 2023 – May 2024

San Jose, CA

- Established an EdTech platform for struggling students, successfully implemented in 10+ Bay Area schools.
- Collaboratively integrated a scalable Node.js backend on Amazon Lightsail with MySQL for database management.
- Led marketing through cold-email campaigns and TeachersPayTeachers, pitching the MVP to 15+ educators.
- Organized feature development based on teacher feedback to enhance platform usability and impact.

### Co-Founder | HTML/CSS, React.js

Verge Financial Services

May 2023 – Aug 2023

Palo Alto, CA

- Co-founded a financial consolidation service for underprivileged families, focused on personal budgeting.
- Built a front-end interface using HTML/CSS and React to enhance user experience and functionality.
- Qualitatively scored and cold-emailed 250 leads, securing 8 beta users and pitching to 3 investors.
- Initiated cold-email surveys to drive product development informed by data insights.

## TECHNICAL SKILLS

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

**Frameworks:** ROS2, React, Node.js

**Tools:** Git, MySQL, Amazon Lightsail