

# Diane Poeng

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## Technical Skills

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

**Frontend:** React, Three.js, Bootstrap, Figma

**Backend:** Node.js, Firebase, SQLite, PostgreSQL, Valkey/Redis

**Tools:** Git, Linux, Jira, Bash, L<sup>A</sup>T<sub>E</sub>X, Google Cloud Vision API

**Methodologies:** Agile Development, SCRUM

## Education

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**University of California, Santa Cruz**

*June 2025*

Bachelor of Science in Computer Science

GPA: 3.69

Relevant Coursework: Algorithms, Data Structures, Intro to Computer Graphics, Software Engineering, Computer Networking, Dynamic Programming, Machine Learning, Large Language Models

## Projects

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**UCSC Economic Trading Using GenAI App**

*Python, Claude (Anthropic API), Valkey, JavaScript, Bootstrap, PostgreSQL*

- Built a real-time economic trading simulator with natural language strategy execution via **LLMs**; tested with over 100 sample strategies.
- Designed trading bots using Poisson logic to simulate 50+ high-frequency traders over 3-minute market intervals.
- Developed a live dashboard with sub-250ms updates for price graphs, account tracking, and transaction logs.
- Reduced prompt errors and ambiguous strategy outputs by an estimated 60–70% through structured prompt engineering and validation.

**TCG Tracker: Pokemon Card Tracker**

*Javascript React, Express, Firebase, Node.js*

- Built a full-stack web application to evaluate grading value and profitability of card collections; tested on 200+ card uploads.
- Achieved 90% image detection accuracy on a sample set of Pokémon cards using Google Cloud Vision API.
- Used Chart.js to visualize real-time pricing trends and collection value, increasing user engagement during testing.
- Led a 4-person cross-functional team using **Scrum** methodology across 3+ sprints to deliver MVP ahead of deadline.

**First-Person Exploration Application**

*Javascript, Three.js, WebGL*

- Designed an immersive 3D exploration app with animated objects and dynamic lighting could be altered using the control panel.
- Integrated textured models and skyboxes, from open source.

## Other Experience

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**Crew Lead – McDonald's**

Hilmar, CA

*July 2020 – April 2021*

- Trained new employees and supervised shift operations, demonstrating leadership and communication skills.
- Streamlined workflows and resolved conflicts in a fast-paced, high-pressure environment.