

# DYLAN G. BANERJEE

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**University of California San Diego**  
B.S. Mathematics-Computer Science

San Diego, CA  
September 2022 – Present

- **Provost Honors:** Spring 2024, Fall 2025
- **Relevant Courses:** Software Engineering, Operating Systems Principles, (*Graduate*) Operating Systems, Data Center Systems, Artificial Intelligence: Probabilistic Reasoning and Decision-Making, Machine Learning: Learning Algorithms, Programming Languages: Principles and Paradigms

## PROFESSIONAL EXPERIENCE

**American Systems Group**  
IT Intern/Associate

San Diego, CA  
November 2022 – Current

- Maintain an active Tier 3 Secret Clearance
- Troubleshooting technical issues and maintaining computer systems
- Hands-on experience in network administration, software installation, and system configuration

## PROJECTS & OUTSIDE EXPERIENCE

**Bayesian Network for Stock Direction Prediction with Latent Sentiment**

*AI Course Final Project*

UC San Diego, CA

September 2025 – December 2025

- Chosen as an *Exemplar* project by the CSE 150A/250A teaching team for future cohorts
- Designed a Bayesian Network with a latent market sentiment variable (bearish/neutral/bullish) to probabilistically predict next-day stock direction using financial indicators, learning hidden states via Expectation–Maximization
- Collaborated in a 4-person team, facilitating communication, coordinating modeling decisions, and helping align technical implementation with probabilistic assumptions to produce a cohesive, high-quality final report

**Code In Place - Stanford University**

Section Leader

Remote

April 2025 – May 2025

- Taught basic Python concepts to students from around the world
- Strengthened students' understanding of core Python coding paradigms and problem-solving strategies through structured exercises and feedback

**Habitizer - Habit Tracking Android Application**

*Software Engineering Final Project*

UC San Diego, CA

January 2025 – March 2025

- Developed an Android habit-tracking application in Java using Android Studio, applying core software engineering principles and design patterns (MVP, Observer, dependency inversion, open–closed principle) to build a modular and maintainable codebase
- Collaborated within a cross-functional student team using Agile workflows, including storyboarding, sprint planning, and burndown/burnup charts, to coordinate development and meet project milestone
- Integrated GitHub pull requests and project boards to manage tasks, track progress, review code changes, and maintain clear communication across the development team.

**Instructional Assistant**

*Introduction to Python at UC San Diego*

San Diego, CA

September 2024 – December 2024

- Guided students through learning challenges with patience and clear communication
- Helped groups collaborate effectively by breaking down complex problems into simple steps
- Supported peers during lab sessions by answering questions and providing hands-on assistance
- Encouraged teamwork and a positive learning environment by clarifying misconceptions

## ACTIVITIES & LEADERSHIP

**Post It With Tritons**

Co-Founder and Vice President

San Diego, CA

October 2024 – Present

**Snow Club**

Club Member

San Diego, CA

October 2023 – Present

## SKILLS & INTERESTS

**Skills:** Java, Git/GitHub, Python, C++, Pandas, NumPy, PyTorch, C, Tailwind CSS, CSS, React, JavaScript, Go, Android App Development, MATLAB, R.

**Interests:** Skiing, Blackjack, Video Games, Tinkering with Raspberry Pis, Exploring New Cities.