

Bryan Xu

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Education

University of California, Santa Barbara

Masters in **Computer Science**

Expected: 06/2023

Bachelor of Science in **Computer Science**, Honors Program | GPA: 3.89

Expected: 06/2022

Relevant Upper Division Coursework: Data Structures & Algorithms I/II, Probability & Statistics I/II, Artificial Intelligence, Machine Learning, Operating Systems, Computer Architecture, Databases, Automata & Formal Languages, Programming Languages, Human Computer Interaction, Teaching Methods in CS, Senior Capstone Project

Internship Experience

Quantitative Analysis Researcher, Prudential Financial

06/2021 - 08/2021

- Researched on machine learning/statistical models used to predict stock market outcomes
- Wrote functionality to integrate ARIMA models and Random Forest models with open-source backtesting libraries to predict stock market prices and automated backtesting with historical stock market data
- Designed functions to calculate financial statistics based on backtesting strategies and outcomes
- Navigated in-house code base to create multiple financial instruments and corresponding pricers

Project Experience

My Memories | MongoDB, Express, React, Node

01/2022

- Full Stack Web App allowing users to create, like, delete, and edit posts, including an authentication system
- Built using Google OAuth and native user database, allowing for different functionalities while logged in

Chat With Me | React, Node, GraphQL

02/2022

- Created real-time chat application that supports multiple chat rooms and concurrent users
- Users can create custom chat rooms and designate usernames, and join group chats or create private chats
- Winner in "Best React + GraphQL App" category at SB Hacks VIII

Pacman AI | Python

03/2021

- Used Markov Decision Process to create basic Pacman AI that can react to ghosts, food, and power pellets
- Pacman completed game (ate all food without dying) with 70% success rate against two semi-random ghosts

Discord Icebreaker Bot | Discord.js

01/2021

- Implemented 10+ commands, including music player and icebreaker games. Currently active in 40~ servers
- Finalist in "Best Beginner Hack" category at SB Hacks VII

Leadership Experience

Undergraduate Learning Assistant, CMPSC16

01/2021 - 03/2021

- Mentored students in basics of object oriented programming such as recursion and polymorphism in CMPSC16, an engineering course for freshmen students focused on developing core programming skills
- Held weekly office hours and ad hoc help sessions for students requiring assistance outside of lecture hours
- Reviewed and updated weekly lab assignments and homework assignments to ensure coherence

Founder/President, UCSB Badminton Club

09/2018 - present

- Practiced large project management and organizational skills by hosting UCSB's first annual collegiate badminton tournament. Consulted multiple departments and organized committees to distribute workload
- Help manage \$2,000 club budget. Invested \$1,000 into hosting a regional-scale badminton tournament, returning 50% (gained \$500) over the span of one month
- Took the initiative to motivate, interview, and organize individuals to establish UCSB's first badminton club, recruiting 70 students over three years

Skills

Programming Languages: C++, Java, JavaScript, C, Python, R, SQL, OCaml, MIPS Assembly Language

Other Technologies/Skills: Spring Boot, React.js, HTML, CSS, LaTeX, Git, GitHub, Bitbucket, Heroku, Node.js, Discord.js, GraphQL, Adobe Illustrator, Adobe Indesign, Adobe Photoshop, Microsoft Office