

MANRAJ MONDAIR

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Education

Stanford University

Expected June 2028

Candidate for B.S. in Computer Science and B.S. in Management Science & Engineering

Activities: Affiliated Stanford Entrepreneurial Students (ASES), Business Association of Stanford Entrepreneurial Students (BASES)

Dr. Floyd B. Buchanan High School

June 2024

High School Diploma (Weighted GPA: 4.78, Class Rank: 2/620)

Awards and Honors: Coca-Cola Scholar (0.14%), Bank of America Student Leader (6%), California Science & Engineering Fair Finalist, Yale Research Award, President's Lifetime Achievement Award (4,000+ service hours), FIRST Robotics World Finalist

Relevant Coursework: Object Orientated Programming (C++), Intro to Computer Systems, Intro to Java Programming, Machine Learning, AP Calculus BC, AP Statistics & Probability, Programming Methodology (Python), Linear Algebra, Multivariable Calculus

Work Experience

Project Management Intern, Bank of America

June 2023 – August 2023

- Oversaw a \$7.8M expansion campaign for The Boys & Girls Club of Fresno County, securing 6+ corporate partnerships
- Spearheaded regional conference, leading cross-functional teams & stakeholders creating seamless engagement for 100+ attendees
- Presented socio-economic reform proposals at the USA Capitol, receiving recognition from the Speaker of the House

Software Developer, Harvard Medical School & McLean Hospital

August 2022 – March 2023

- Developed an interactive recruitment dashboard to optimize the management of 800+ patient databases for trauma research
- Built a patient data management system using **R Shiny** & **API**, improving research efficiency and data accessibility tools
- Participated in a project that received \$3.2M in NIH/NIMH funding, benefiting research for 50+ Mass General Brigham

Research Experience

Artificial Intelligence Researcher, Argonne National Laboratory

August 2023 – March 2024

- Contributed to the development of Aurora generative AI, a scientific research-focused GPT model with over 1 trillion parameters
- Collaborated with Intel on a \$500M federally funded project for a multi-year, international AI research initiative
- Trained generative AI neural networks on quantum computing literature using **Python**

Computer Science Researcher, Princeton University

August 2022 – November 2023

- Conducted a computation usage study by interviewing 300+ renowned researchers to assess computational research practices
- Synthesized datasets, by developing large language models (**LLMs**), for the identification of optimal computational tools
- Presented a 12-page IEEE publication at the SC24 international conference for computing with The Liberty Research Group

Machine Learning Researcher, University of Southern California

May 2022 – August 2022

- Developed convolutional deep networks in **PyTorch** for vision-based navigation of robots in a continuation of an ArXiv preprint
- Integrated optimal control and learning in 10,000+ lines of **Python** code for visual navigation in novel environments
- Collaborated with researchers at Facebook AI Research to efficiently advance the current code databases written in **TensorFlow**

Computational Aerospace Researcher, California State University Fresno

January 2022 – May 2022

- Enhanced a differential orbital latitude/longitude equation using **MATLAB** and **GNU Octave**
- Developed sample orbital missions in **NASA's GMAT**, implementing 6,000+ orbital data points across 3+ optimization functions
- Prepared a pending publication and presentation for 40+ engineering researchers at Lyles College of Engineering

Technology Entrepreneurship Experience

Venture Fellow, Laconia

March 2024 – May 2024

- Obtained exclusive insight into **VC** investment processes: deal sourcing, due diligence processes, and portfolio management
- Contributed to discussions on investment strategy and sector-specific strategies based on specialized expertise

Founder & Chief Executive Officer, CScholar LLC

August 2022 – May 2024

- Launched an ed-tech startup developing novel generative AI mentors to provide academic and mental health support
- Developed an iOS app integrating a 100+ CS question/answer database with innovative UI/UX design using **Swift**

Founder & Chief Executive Officer, To Educate Adolescent Minds (T.E.A.M.)

August 2020 – May 2022

- Led 100+ directors to empower 1,400+ youth globally through AI-powered workshops and one-on-one mentorship opportunities
- Recognized by POTUS for global public service, with features on ABC, NBC, GV Wire, and Business Journal news outlets

Technical Skills

Languages: Python, C++, MATLAB, GNU Octave, R, Swift

Libraries: TensorFlow, Matplotlib, PyTorch, R Shiny, .NET

Tools: GitHub, NASA GMAT, Microsoft VS Code, Textpad, WordPress, iOS Xcode, Qiskit, Jupyter Notebook