Rohan Sanda

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EDUCATION

Stanford University (Palo Alto, CA)

Expected, Jun. 2025

B.S. Electrical Engineering, (Intended M.S. in Computer Science)

GPA: 4.00

Minor in Mathematics

• Coursework: Operating Systems Principles, Discrete Math, Linear Algebra, Probability, Differential Equations, Circuits, Signal Processing, Algorithms, Machine Learning Theory (Spring), Computer Vision (Spring)

TECHNICAL EXPERIENCE

Jun. 2022 – Aug. 2022

Flight Physics Research Intern, Advised by Eric Rogers

Santa Cruz, CA

- Developed a MATLAB software package from scratch containing models and signal processing pipelines to study interference between phase-coded and frequency-modulated CW radar systems
- Researched and evaluated interference-mitigation and repair algorithms
- Presented simulation results to senior company leadership to inform future radar design

Stanford Radioglaciology Lab

Feb. 2021 - Jun. 2022

Research Intern, Advised by Dr. Dustin Schroeder (PI) and Dr. Nicole Bienert

Palo Alto, CA

- Developed novel signal processing software in MATLAB to synchronize the transmitter and receiver of a bistatic ice-penetrating radar enabling it to operate at offsets longer than most known bistatic systems
- · Successfully processed and analyzed field data from Antarctica using high-performance scientific computing clusters
- Poster presentation at the 2021 American Geophysical Union conference and co-author on an IEEE TGRS publication

PROJECT EXPERIENCE

Stanford Space Initiative

Sept. 2022 – Present

Palo Alto, CA

- High-Altitude Balloons Team Co-Lead
- Lead a team of 15 students building long-range, zero-pressured balloons
- Experimenting with <u>self-stabilizing gliders</u> to be deployed from balloons

Stanford Data Analysis and Mapping for Society

Sept. 2020 - Sept. 2021

Data Consultant

THINK Scholar

Palo Alto, CA

Remote

• Part of a three-person team that developed an interactive data <u>dashboard</u> using ShinyR for the City of Oakland and Stanford Changing Cities Lab to study gentrification

MIT THINK Grant Recipient

Jan. 2019 – Jun. 2019

• Won funding from MIT to develop a smart insole to mitigate foot-ulcer formation in diabetic neuropathy patients

- Successfully built my prototype that used WiFi-enabled microcontrollers and custom C++ libraries to alert users of ulcer-inducing foot positions via smartphone notifications
- Project was awarded 1st place in the 2019 MIT THINK Competition (~500 applicants) and a Semi-Finalist in the 2020 National Science Talent Search (~3000 applicants)

SKILLS

Programming: C++, C, Python, MATLAB, R, HTML/CSS

Tools: PyTorch, Jupyter Notebook, Git, LaTeX, Autodesk Fusion 360

Other: Signal processing, radar, software-defined radios Languages: English, Hindi (oral), Spanish (intermediate)