Rohan Sanda

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EDUCATION

Stanford University (Palo Alto, CA), GPA 4.0 / 4.0 — Class of 2025
B.S. in Electrical Engineering with a Minor in History (Intended)
Relevant Coursework: Programming Abstractions in C++, Computer Systems from the Ground Up,
Probability for Computer Scientists, Applied Matrix Theory (Spring), Deep Learning for Computer Vision (Spring)

Tamalpais High School (Mill Valley, CA), GPA 4.55 / 4.0 — Class of 2020

TECHNICAL EXPERIENCE

Radio Glaciology Lab, Intern (Prof. Dustin Schroeder, Stanford University) — Dec 2020 – Dec 2021
- Wrote novel signal processing software for bistatic ice-penetrating radars in MATLAB that were used to recover
- bed echo powers at offsets longer than any known bistatic radar systems
- Successfully processed bistatic field data from Antarctica to estimate attenuation rates at different path lengths
- Developed a new protocol now being deployed in the field for predicting recording times at different offsets
MATLAB, research, data analysis, link budgets, signal processing, software-defined radio, computing clusters

Biochemistry Research Assistant, Summer Science Program Participant (Prof. Elizabeth Komives, UCSD) — Jun 2019 – Aug 2019
- Designed an *in silico* small-molecule inhibitor to a critical protein in crop-infesting fungus
- Performed assays to determine catalytic properties of target protein
Wet lab, research, protein assays, data analysis, teamwork, Molecular Operating Environment

MIT THINK Program, Finalist (Remote) — Feb – June 2019
- Won funding from MIT to design a novel medical device to prevent diabetic foot ulcers in at-risk patients
- Wrote C++ code to evaluate sensor-array data from a microcontroller and wirelessly log data over Wi-Fi
C++, Arduino, IoT, sensors and actuators, UART, 3D-printing, communication

RELEVANT EXTRACIRRICULARS

Stanford Student Space Initiative, Project Lead and Outreach Co-lead — Sept 2020 – present
- Lead a team of eight students building an autonomous glider to recover payloads from high-altitude balloons
- Building a telemetry communication system in C++ using the Iridium Satellite Network
- Designing and testing a reusable, cost-effective parachute deployment system
Leadership, teamwork, Python, C++, PWM, Fusion 360 CAD, 3D-printing

Stanford UAV Club, Treasurer — Sept 2021 – present
- Built, programmed a self-stabilizing RC-plane from scratch
- Manage a ~$20K budget and working to establish a club-affiliated aerospace startup incubator
Leadership, accounting, entrepreneurship, C, C++, I2C, SPI, microcontrollers, PID control loops, IMU sensors

Stanford Collaborative Orchestra, Bassoonist — Sept 2020 – present

AWARDS

- 1st Place in the 2019 Massachusetts Institute of Technology THINK Competition
- Semi-Finalist in the 2020 Regeneron National Science Talent Search

PRESENTATIONS AND PUBLICATIONS

- N. Bienert, D. Schroeder, S. Peters, E. MacKie, E. Dawson, M. Siegfried, **R. Sanda**, P. Christoffersen, "Post-Processing Synchronized Bistatic Radar for Long Offset Glacial Sounding," IEEE TRANS. Geosci. Remote Sens., (accepted and pending publication). DOI: 10.1109/TGRS.2022.3147172 — 2022
- **R. Sanda,** D. Schroeder, N. Bienert, et al. "Informing Bistatic Radar Experiments at Thwaites Glacier Using Bistatic Data from Greenland and West Antarctica." Fall Meeting. American Geophysical Union. Remote. 13 Dec. 2021. — 2021

SKILLS

Programming: C++, C, Python, MATLAB, R, Git
Software: Autodesk Fusion 360 CAD
Hardware: Arduino hardware, soldering, multimeter, oscilloscope, spectrum analyzer
Languages: English, Hindi (oral), Spanish (intermediate)