ARUNIM AGARWAL

Education Senior, Class of 2021, Henry M. Gunn High School, Palo Alto, CA

School Activities

- Co-Founder and President, Village Studio (2019-present): Built a student-run makerspace from scratch as a creative outlet for high schoolers, pitched to PTSA and administration for funding, managed a team of student-mentors and a $18K+ in budget.
- Co-Founder, President, Club of Clubs (2018-present), Co-President, Juggling Club (2018-present).
- Elected class officer, Site Council Representative (2017-present): Leadership Council, PTSA Rep., Bond Advisory Committee Rep., Facilities Committee Rep.

Work Experience

- **Research Intern, UC Santa Cruz Earth and Planetary Science** (July 2020-present): Analyzed satellite images of Greenland Ice Sheet over 35 years to demonstrate acceleration of retreat due to proximity to a fast-moving glacier and climate change. Writing a manuscript with Prof. Tulaczyk.
- **Independent Research Project** (July 2020- present): Applied principal component analysis in Python to analyze trends in household energy usage that could potentially be used for efficient smart building design. With Dr. Marwah, adjunct professor at Santa Clara University.
- **Intern, Stanford Global Projects Center** (Winter 2019-20): Analyzed Census data to describe trends and equity in access to health care, insurance, and services for Bay area residents.
- **Paid Intern, Stanford Department of Geophysics** (Summer 2019): Conducted field work and data analysis on underground fiber optic cables using Distributed Acoustic Sensing (DAS) to improve seismic monitoring under Prof. Biondo Biondi and Ariel Lelouch.
- **Camp Counselor, City of Palo Alto Recreation** (Summer 2018)

Maker + Skills

- Mentor, MakeX (2018-present): Nation's first student-founded student-run free access community makerspace. Helped students of all ages to create projects, kept the makerspace operational, worked on budget, site management, and outreach. Supplied 3D printed PPE to hospitals during the pandemic.
- Lead, Homecoming Floats (2018, 2019): Designed and built a dynamic float from scratch with a team.
- CAD software, laser cutters, CNC, 3D printers, Python, HTML basics
- Languages: English, Hindi, Spanish, beginning Mandarin

Awards

- National Merit Scholarship Semifinalist (2020)
- American Invitational Mathematics Examination (AIME) Qualification (2018, 2019)
- President's Volunteer Service Gold Award (2018)
- Represented Gunn Varsity XC in Central Coast Section (2018); Most improved frosh/soph (2018)
- National Spanish Examination Gold Medal (2017)

Summer Experiences

- **Stanford Talking Across Fields Math Conference** (2020): Attended an advanced, college-level conference on probability, statistics, and combinatorics.
- **Smart Cities Opinion Piece** (2020): Reviewed advances in digital cities and Sidewalk Labs.
- **Disruptive Technology and Digital Cities Conference** (2019): Volunteered and learned about urban infrastructure innovations to tackle issues such as efficient transportation and energy usage.
- **embARC at UC Berkeley** (2019): Fundamentals of urban design; abstracted + designed a pavilion.

- **BlueStamp Engineering** (2018): Created a smart mirror with news, forecast, time, traffic etc.
- **ACE: Architecture Construction and Engineering** (2017-18): Designed a modular green home.
- **Biomedical Engineering, Simmons College** (2017): Designed a reinforced insulin pump cannula for Type 1 Diabetes.
- **Boston Architectural College** (2017): Studied architecture design principles.