Samrudh Shenoy

Homestead High School, Cupertino, CA.

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EDUCATION

- **Homestead High School**, Cupertino, CA. GPA 3.99/4.00, 4.47 weighted.
- **Evergreen Valley College**: Math 73 Multivariable Calculus (A+).
- Machine Learning – Andrew Ng (Stanford, Coursera) online course.

STANDARDIZED TESTS

- SAT: 1550; SAT Math Level 2: 800; SAT Physics: 790
- AP Computer Science: 5, AP Calculus BC: 5, AP Calculus AB Subscore: 5, AP US History: 5, AP Physics C: 5, AP English Language: 5, AP Statistics: 4.
    - In Progress: AP US Government, AP Biology, AP English Literature, AP Spanish Language.

HONORS AND ACCOLADES

Research

- **Determining Early Prognosis of Therapeutic Hypothermia in Neonates through a Mobile Application**
    - **Samrudh Shenoy**, Dr. Anoop Rao. Lucille Packard Children's Hospital, Stanford, CA.
    - Submitted to Journal of Internet Medical Research (October 2020)
    - Entered into 2021 Pediatric Academic Societies Conference (October 2020)

- **Non Invasive Real Time Estimation of Cardiac Output Through Analysis of Arterial Waveforms**
    - **Samrudh Shenoy**, Dr. Anoop Rao, Xina Quan (PyrAmes Inc). Lucille Packard Children's Hospital, Stanford, CA.
    - Submitted to Journal of Internet Medical Research (July 2020)

Academic

- **National Merit Finalist**: Scored above the California selection index on the PSAT/NMSQT exam and was named a Finalist, among 1% of the graduating Class of 2021.

FBLA

- **National Finalist & 2nd at State, Mobile App Development**. Programmed a quiz-based iOS app to test members' knowledge of FBLA, features include Facebook integration, live Firebase database, user feedback system. (2019)
- **National Qualifier & 2nd at State, Coding and Programming**. Developed a desktop remote database program for librarians to manage and keep inventory of their books and patrons. Programmed in Java and JavaFX. (2018)

Debate

- **Octofinalist in Varsity LD Debate**: SCU Dempsey Cronin Invitational 2019.
- **Octofinalist in LD Debate**: 32nd Stanford Invitational 2018.
- **Octofinalist in Varsity LD Debate**: SCU Dempsey Cronin Invitational 2018.
- **Quarterfinalist in LD Debate**: SCU Philalethic Invitational 2017.

Boy Scouts

- **Eagle Scout, Troop 457**. Troop Guide, Patrol Leader, Trek Lead, and Webmaster. 11th year in scouting and 7th year in troop leadership, 25 campouts attended, and $5000+ in popcorn sold.

RESEARCH ASSISTANTSHIPS

- **Biotechnology Research Assistant at Stanford Healthcare**. *Mentor: Dr. Anoop Rao, 11th-12th.*
  - Co-authored a paper outlining Cardiac Output estimation and Hypoxia prognosis using novel algorithms on neonatal medical data. Applied AI/ML via Python TensorFlow.
  - Designed and built prototype applications for medical professionals to use in hospitals, piloted in the Lucille Packard Children's Hospital.
  - Worked on and added several features to a data processing pipeline and visualization tool for ABPM patient data using MATLAB and MatPlotLib.
- **Data Science Research Intern at PyrAmes Inc**. *Mentor: Dr. Xina Quan, 11th-12th Summer.* Stanford-partnered startup developing a first-of-its-kind non-invasive sensor to measure heart rate and blood pressure factors in real-time.
  - Data science research intern, paid. Applied ML and a neural network written in Python to analyze signal data, developed data visualization programs to isolate root causes and frequencies of white noise.
  - Extracted clear signals by filtering out white noise, graphed and assessed relationships using Fourier Transforms.
  - Researched empirical methods of data refinement and devised algorithms that improved sensor output quality.

LEADERSHIP

- **Founder and President: Atom (2019 - current)**
  - Set vision, formed a 4-person team, and created plan for Bay Area CS bootcamp. Using local services such as Nextdoor and email blasts to advertise, and holding shelter-in-place online sessions and workshops teaching Java programming.
  - Delegating jobs including marketing, website maintenance, and curriculum development. Currently, 40+ hours tutored.
- **FBLA: Executive Technology (12th), VP Technology (11th), Tech Chair (10th)**
  - Head of tech at #1 chapter in the nation, 400 members. Spearheading development of chapter mobile app, maintaining chapter website. Leading and working with competitive teams at SLC and NLC.
- **Technology Lead: DVHacks II (11th, 2020)**
  - Bay Area hackathon with 500+ high school participants. Worked with tech team, Outreach and Logistic Leads to coordinate plans, allocate funds, and develop website for event. Led efforts including onsite setup, troubleshooting, and participant guidance.
- **Homestead Speech & Debate: Varsity Debate Captain (12th), JV Debate Captain (11th)**
  - Leading debaters in preparing for tournaments, including case preparation, practice debates, and argumentative guidance. Heading general and committee meetings, organizing tournament logistics.
- **STEM Tutor: Tutorfly (9th – 11th)**
  - Helped 6 students in mathematics, Java programming, and Spanish. Helped them increase test performance and move up by a letter grade.
  - Created lesson plans catered toward school curriculum, and assessed strengths and weaknesses to help them learn content. Planned interactive activities to engage them and encourage problem-solving.
- **Patrol Leader – BSA Troop 457**
  - Leading Koalas patrol in Troop activities and events. 200+ volunteer hours at soup kitchens, public renovation, and service projects. Eagle project: Complete revamp of school tennis shed.

LANGUAGES

- **English** (full proficiency); **Konkani** (native proficiency); **Spanish** (working proficiency)