Alison Soong

soong@mit.edu | (415) 999-0760 | linkedin.com/in/alisonsoong/ | github.com/alisonsoong | alisonsoong.com

EDUCATION

Massachusetts Institute of Technology   *Aug 2023 - May 2027*

- GPA: 5.0/5.0; Candidate for Bachelor of Science in **Electrical Engineering and Computer Science**
- Relevant Classes: *Computer Networks, *Distributed Systems, Algorithms, Machine Learning, Software Construction   (*Grad)
- Activities: Assistive Technology, MIT SERC Scholar, Research (UROP), Technique (Photography), HackMIT, MedLinks

SKILLS

Proficient: C++, Python, Go, TypeScript, Version Control (git/hg), Agile tools; **Familiar:** Java, Swift, C, HTML/CSS, JS (React)
Interests: Puzzle Hunts (winning team of MIT Mystery Hunt 2025), Accessibility/Inclusion, Photography, Climbing

WORK EXPERIENCE & RESEARCH

Research Scholar, Synergy Cohort @ MIT Social and Ethical Responsibilities of Computing   *Sep 2025 - Present*

- Investigating synergy and collective intelligence via mixed-methods research on human-AI collaboration, analyzing how computational tools can enhance team dynamics and decision-making, and identifying potential risks of automation bias

Google SWE Intern, AI/Network Infrastructure (ML, Systems, and Cloud AI)   *May 2025 - Aug 2025*

- Designed and developed a scalable C++ configuration generator to automate deployments of a distributed nanosecond-precise clock-synchronization across a Pbps-scale datacenter, improving operational efficiency and consistency
- Achieved nanosecond-level precise clock synchronization with Firefly on legacy NIC hardware in test environments, laying the groundwork for planet-scale deployment in Google Cloud and latency-critical workloads such as distributed ML training; involved adapting Firefly for hardware constraints and addressing software/kernel requirements

MIT Undergraduate Researcher, Autonomy and Embedded Robotics, Accelerated (AERA) Group   *Aug 2024 - May 2025*

- Engineered and optimized MLAT-R (multi-level action tree rollout) in C++ and Python based on the LIDS AERA group's 2024 ICRA paper; demonstrated via rigorous testing and hardware integration

Google STEP Intern   *Jun 2024 - Sep 2024*

- Designed and developed replication/data movement features for business-critical logs system (processing 10+ PB of data per day); utilized C++, Spanner; provided automated launch of data migration through CLI tooling and a front-end portal; presented to host team; tested via unit and e2e tests (GUnit); deployed to production, impacting major Cloud customers

PROJECTS & LEADERSHIP

President (prev. Team Lead), MIT Assistive Technology Club   *Jan 2024 - Present*

- Leading 20+ teams (each paired with a disabled codesigner) in engineering assistive technologies; advising system design, liaising with sponsors and faculty advisors, and organizing semesterly poster/demo showcases for the community
- Personally involved with: **Project Daredevil** (Ongoing), researching/implementing use of spatial audio, LiDAR, monocular depth for blind navigation and **Scope** (Completed), UX research on mobile devices + object detection for blind assistance

μCloud: 6.1850 (Society & Systems) Final Group Project   *Sep 2025 - Dec 2025*

- Designed and implemented a peer-to-peer caching system to mitigate flash crowd effects by leveraging nearby devices as a temporary micro-cloud and overlaying existing web servers without requiring server modification; collaborated in a team of 4 to develop, evaluate, and document the system

BLINC: 6.5820 (Grad Computer Networks) Final Group Project   *Sep 2025 - Dec 2025*

- Developed a fault-tolerant neural compression system for wireless real-time video streaming, maintaining visual fidelity despite bit corruption during transmission; collaborated/presented in a team of 3

Software/Controls Robotics Captain, FRC 1868 Space Cookies   *2019 - 2023*

- Led software team of 15+ girls; created/taught new-member controls workshops; coded competition robots (C++, GitHub, GitHub Projects); interviewed in all technical judging sessions; designed/led Girl Scouts outreach robots and workshops
- FIRST Robotics Dean's List Finalist (2022); Software Director (2020 - 2022); 2x Qualified for FIRST World Championships (2022, 2023); top 1% of teams for auto EPA (2023); Innovation in Control Award (2023)

ADDITIONAL INFORMATION

Awards: NCWIT 2x National Honorable Mention (2022, 2023); National Merit Scholar; 2x AIME Qualifier; USACO Silver