

Sadman Ahmed Shanto

EXPERIMENTAL PHYSICIST BUILDING SUPERCONDUCTING QUANTUM HARDWARE AND DESIGN AUTOMATION TOOLS

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Education

UNIVERSITY OF SOUTHERN CALIFORNIA (USC)

Los Angeles, CA

DOCTOR OF PHILOSOPHY (PHD) IN PHYSICS

2021 – 2027

- Expected Graduation: *January 2027*

MASTER OF ARTS (MA) IN PHYSICS

May 2026

TEXAS TECH UNIVERSITY (TTU)

Lubbock, TX

BACHELOR OF SCIENCE (BSC) IN APPLIED PHYSICS

2017 – 2021

- Minors: *Computer Science and Mathematics*

Employment

Google Quantum AI

Mountain View, CA, USA

RESEARCH INTERN

Aug. 2025 – Aug. 2026

- Contributed to the design, simulation, and tape-out of GQAI's latest flagship superconducting processor, the successor to *Willow*, and served as peer designer on several additional processors and test chips.
- Owned core features of the simulation infrastructure behind every chip designed at GQAI, adding support for new classes of simulation and building large-scale system simulation automation that did not previously exist.
- Helped in the development of custom FEM solvers with proprietary meshing algorithms and basis functions, cutting the runtime of key simulation and analysis flows by $\sim 95\%$.
- Rebuilt EM simulation and quantum analysis workflows from first principles for an $\sim 88\times$ end-to-end speedup on specific production workloads.
- Co-led the machine learning for chip design effort and carried it past research into the production simulation workflows designers use daily.
- Co-developed proprietary layout and automated verification tooling (DRC, LVL, LVS) that made compilation of large-scale processor layouts $\sim 10,000\times$ faster.
- Authored numerous simulation and layout skills/tools for Google's internal coding agent, giving it the domain grounding to carry out these tasks correctly and repeatably without hallucinations.
- Replaced 10+ expert-only manual workflows with automated pipelines that are fault tolerant, recover cleanly from failure, and never recompute a result twice; work to date has yielded \$3M+ in monthly compute savings.
- Wrote the documentation that brought designers onto the new tooling, contributing to a $\sim 3\times$ faster tape-out process.

Levenson-Falk Lab (LFL), University of Southern California

Los Angeles, CA, USA

GRADUATE RESEARCH ASSISTANT

Jan. 2022 – Present

- Creator and lead developer of *SQuADDs*, an open-source platform that takes superconducting device design from weeks to minutes; published in *Quantum* (2024) and adopted by academic and industrial groups worldwide for simulation, optimization, and fabrication-ready layout generation.
- Leading the development of generalizable foundation ML models for quantum device simulation and design, in collaboration with NVIDIA, Northeastern University, and Fermilab.
- Co-leading development of an agent harness with Lawrence Berkeley National Laboratory that carries a device from design through simulation to tape-out readiness end to end.
- Developed and validated a high-yield nanofabrication process for nanobridge-SQUID resonators with 15 nm features, scaling functional device yield from under 2% to over 90%.
- Designed, fabricated, and measured nanobridge resonators, offset-charge-sensitive transmons, "trimon" devices, "dissipator" devices and custom Josephson parametric amplifiers to probe quasiparticle dynamics and improve qubit readout, along with the PCBs, packages, and cryogenic microwave chain that house and measure them.
- Built a Hidden Markov Model inference pipeline that extracts real-time quasiparticle occupation from I/Q trajectory data, enabling direct dynamic modeling of quasiparticle trapping and release.
- Leading Andreev bound state spectroscopy and nanoSQUID quasiparticle trap experiments to characterize and mitigate quasiparticle-induced decoherence in superconducting qubits.
- Led the creation of a fully automated design-to-simulation-to-GDS pipeline for the lab, with the Ansys and Palace simulation stack on USC's HPC cluster.
- Leading the open-source integration of AWS Quantum's EM solver *Palace* with *Quantum-Metal*, giving the hardware community scalable cloud-based simulation pipelines.
- Mentored five graduate and six undergraduate researchers through device design, fabrication, and measurement projects.

Quantum Elements Inc.

Thousand Oaks, CA, USA

SUMMER RESEARCH INTERN

May 2025 – Aug. 2025

- Built a production agentic AI framework that runs superconducting quantum experiments end to end, coordinating multiple specialized agents so they can calibrate, measure, diagnose, and analyze results without a physicist in the loop.
- Architected the full-stack backend underneath it, with custom APIs, scalable databases, and containerized microservices on AWS, uniting the company's ML models, simulators, and instrument control into one system agents could act on through MCP servers.
- Designed the evaluation and tracing layer that made agent behavior measurable, turning open-ended autonomous runs into tracked metrics and reproducible traces engineers could debug.
- Contributed modular calibration nodes and DAG-based calibration graphs to *QALibrate*, Quantum Machines' open-source framework for large-scale QPUs, cutting processor tune-up from hours to minutes.

Advanced Particle Detector Laboratory (APDL), Texas Tech University

Lubbock, TX, USA

UNDERGRADUATE RESEARCH ASSISTANT

Nov. 2018 – Aug. 2021

- Led the end-to-end redesign of the optical system for muon telescopes, developing custom Winston cones that raised signal collection efficiency from 20% to 78%.
- Co-designed and assembled both SiPM- and PMT-based muon telescopes, machining 50+ scintillator bars and calibrating 40 SiPMs and 44 PMTs.
- Built DAQ systems on Arduino, CAMAC crates, and custom PCBs with wireless synchronization, using multithreaded sync and FPGA logic to cut channel deadtime by 300x, and wrote the real-time acquisition and analysis software that turns raw readout into muon flux maps on the university HPC.
- Validated the instrument against a full Geant4 Monte Carlo of photon scattering and muon interactions, then built ML reconstruction methods, TDC photon time-of-propagation for depth inference and RNN/LSTM recovery of missing hits, that lift 2D detector data into 3D tomographic images.

Institute for Software Integrated Systems (ISIS), Vanderbilt University

Nashville, TN, USA

SUMMER RESEARCH INTERN

Jun. – Aug. 2020

- Built a full-stack calibration pipeline for microscopic traffic models, handling parameter identifiability and stochastic noise under multi-objective constraints, and parallelized the simulation-optimization sweeps with Ray for a 10x+ speedup.
- Developed tooling to convert Intelligent Driver Model output into radar-style datasets for validation against real-world aggregate measurements, and contributed to Berkeley's Flow framework for closed-loop reinforcement learning in calibrated traffic environments.

Texas Tech Multidisciplinary Research in Transportation (TechMRT)

Lubbock, TX, USA

UNDERGRADUATE RESEARCH ASSISTANT

Jan. 2019 – Jun. 2020

- Built an open-source simulator for mixed autonomous and human traffic on an extended Nagel-Schreckenberg cellular automaton, supporting both rule-based and learning agents.
- Designed AV control strategies for shared-lane mobility and dynamic lane switching with RL agents that adapt to local density gradients, surfacing emergent behaviors such as intelligent herding and platoon formation and quantifying the system-wide flow effects of AV/HV composition.

Publications

- SEIDEL, O., ABOUZAH, F., CHAKRABORTY, A., SHANTO, S.A., DAS, S., BAXTER, D., ASAADI, J., PANCOTTI, N., YANG, H., KHAILANY, B., SUSSMAN, S., FIGUEROA-FELICIANO, E., LEVENSON-FALK, E.M., PATTI, T.L. **COMPONENT-LEVEL INVERSE DESIGN OF TRANSMON QUBITS USING NEURAL NETWORKS** *arXiv:2607.20795* 2026
- TANG, Y., SHANTO, S.A., WANG, K., PANCOTTI, N., NONAKA, A., LEVENSON-FALK, E.M., YAO, Z. **AGENTQ: AN LLM-AGENTIC FRAMEWORK FOR TIME-DOMAIN SUPERCONDUCTING QUANTUM CHIP SIMULATION** *In Prep.* 2026
- MAURYA, V., KOWSARI, D., SAURAV, K., SHANTO, S.A., VIJAY, R., LIDAR, D.A., LEVENSON-FALK, E.M. **UNIVERSAL HAMILTONIAN CONTROL IN A PLANAR TRIMON CIRCUIT** *Under Review at PRX Quantum* 2026
- LEVENSON-FALK, E.M., SHANTO, S.A. **A REVIEW OF DESIGN CONCERNS IN SUPERCONDUCTING QUANTUM CIRCUITS** *Materials for Quantum Technology* 2025
- SHANTO, S.A., KUO, A., MIYAMOTO, C., ZHANG, H., MAURYA, V., LEVENSON-FALK, E.M. **SQUADDS: A VALIDATED DESIGN DATABASE AND SIMULATION WORKFLOW FOR SUPERCONDUCTING QUBIT DESIGN** *Quantum* 2024
- MAURYA, V., ZHANG, H., KOWSARI, D., KUO, A., HARTSELL, D.M., MIYAMOTO, C., LIU, J., SHANTO, S.A., VLACHOS, E., ZARASSI, A., MURCH, K.W., LEVENSON-FALK, E.M. **ON-DEMAND DRIVEN DISSIPATION FOR CAVITY RESET AND COOLING** *PRX Quantum* 2024

	ELFEKY, B.H., STRICKLAND, W.M., LEE, J., FARMER, J.T., SHANTO, S.A., ZARASSI, A., LANGONE, D., VAVILOV, M.V.,	
7	LEVENSON-FALK, E.M., SHABANI, J. QUASIPARTICLE DYNAMICS IN EPITAXIAL AL-INAS PLANAR JOSEPHSON JUNCTIONS <i>PRX Quantum</i>	2023
8	FARMER, J.T., ZARASSI, A., SHANTO, S.A., HARTSELL, D., LEVENSON-FALK, E.M. ELECTRON-PHONON INTERACTIONS IN THE ANDREEV BOUND STATES OF ALUMINUM NANOBIDGE JOSEPHSON JUNCTIONS <i>Physical Review B</i>	2023
9	SHANTO, S.A., GUNTER, G., WORK, D.B., RAMADAN, R., SEIBOLD, B. CHALLENGES OF MICROSIMULATION CALIBRATION WITH TRAFFIC WAVES USING AGGREGATE MEASUREMENTS <i>Transportation Research Board Annual Meeting</i>	2021
10	PEREZ, R., SHANTO, S.A., MOOSAJEE, M., CANO, S. HIGH-RESOLUTION MUOGRAPHY USING A PROTOTYPE PORTABLE MUON TELESCOPE <i>Journal of Undergraduate Reports in Physics</i>	2020

Talks & Presentations

June. 2026	Invited Lecture for Quantum Design Workshop @ UCLA , "Generalizable Machine Learning Models for Superconducting QPU Design"	Los Angeles, USA
May. 2026	Invited Talk at U of I Quantum Circuit Conference (UIQC 2026) , Towards Generalizable Machine Learning Models for Superconducting QPU Design	Urbana-Champaign, USA
Feb. 2026	Invited Talk at LAWRENCE BERKELEY NATIONAL LAB , Integrating Superconducting Quantum Chip Design into ARTEMIS Solver	Online
Jan. 2026	Invited Talks at NVIDIA and FERMILAB , ML for Quantum Chip Design	Online
2025	Invited Lectures for Quantum Design Workshop @ UCLA , "Learning Inverse Design Maps using ML for Physics Discovery" and "Designing Fabrication-Ready Superconducting Quantum Chips"	Los Angeles, USA
2025	Invited Lecture for QEE @ USC , Introduction to Quantum Device Design	Los Angeles, USA
2025	SQuADDs: A validated design database and simulation workflow for superconducting qubit design , APS Global Physics Summit	Anaheim, USA
2024	Invited Lecture for Quantum Device Course @ USC , Designing a "fab-ready" chip with SQuADDs	Los Angeles, USA
2024	Invited Lectures , Qiskit Fall Fest 2024 on Superconducting Quantum Hardware Research	Online
2024	Poster and Talk at LINCOLN LABS , SQUILL User Foundry Meeting	Lexington, USA
2024	Invited Lectures at FERMILAB , Qubit Design and ML Summer School	Online
2024	Going from Hamiltonian to GDS File: An Open Source Package for Generating Qubit Designs , APS March Meeting, 2024	Minneapolis, USA
2024	Invited Talk at LINCOLN LABS , Introducing SQuADDs	Online
2022-2024	Invited Lectures on "How to be an Effective TA 101" , PHYS 593: Practicum in Teaching Physics and Astronomy, USC	Los Angeles, USA
2023	Quasiparticle Dynamics in Andreev Bound States Part 2: Photon Interactions , APS March Meeting, 2023	Las Vegas, USA
2021	American Physical Society April Meeting , Machine Learning in Muon Tomography Talk	Online
	Physics Departmental Colloquium , Dancing in the "Muon" light	Lubbock, USA
	University Research Conference, TTU , Economic Impact of Quantum Computers	Virtual
	SPS and Women In Physics (WiP) Programming Principles , Speaker	Lubbock, USA
2020	SPS and Women In Physics (WiP) Introduction to Programming , Speaker	Lubbock, USA
	Departmental Poster Competition, Department of Physics and Astronomy, TTU	Lubbock, USA
	Quantum 2020 (Institute Of Physics) Virtual Conference , Analysis of VQE Regimes in NISQ Era	Virtual
	Summer Showcase! at the Institute for Software Integrated Systems	Tennessee, USA
	International Symposium on Transportation Data and Modeling (ISTDM) , Postponed	Michigan, USA
	TTU Undergraduate Research Conference , Muon Tomography Talk	Virtual Conference
	TTU Undergraduate Research Conference , Autonomous Vehicle Model Poster	Virtual Conference
2019	Far West Section of American Physical Society (FWSAPS), STANFORD UNIVERSITY	Stanford, USA
	Texas Section of American Physical Society (TSAPS)	Lubbock, USA
	Departmental Poster Competition, Department of Physics and Astronomy, TTU	Lubbock, USA
2018	Undergraduate Colloquium: Programming Principles , SPS TTU	Lubbock, USA

Journal Refereeing

Physical Review A
Physical Review B
Physical Review Applied
Physical Review Letters

American Physical Society
American Physical Society
American Physical Society
American Physical Society

Leadership & Involvement

USC Dornsife Celebration of Scholarship

FUNDRAISING STUDENT REPRESENTATIVE

Los Angeles, USA
2026

Quantum Device Consortium (QDC)

BOARD MEMBER

International
2025-Present

quantum-metal (formerly qiskit-metal)

MAINTAINER

Open Source
2025-Present

Quantum Device Design Workshop (QDW)

WORKSHOP ORGANIZER

Los Angeles, USA
2025-Present

Quantum Computing Student Association (QCSA)

BOARD MEMBER

Los Angeles, USA
2025-Present

Quantum Engineering Ethics (QEE)

ADVISOR

Los Angeles, USA
2025-2026

Summer of Quantum in LA

LEAD ORGANIZER

Los Angeles, USA
2025-Present

SQuADDs

CREATOR AND MAINTAINER

Open Source
2024-Present

Graduate Association of Students in Physics

PRESIDENT

California, USA
2022-2025

Dornsife Graduate Students Association

DIRECTOR

California, USA
2023-2025

Graduate Students Government

SENATOR

California, USA
2023-2025

American Physical Society (APS)

MEMBER AND STUDENT AMBASSADOR (2023-PRESENT)

North America
2019-Present

Sigma Pi Sigma Physics Honor Society

MEMBER

North America
2020-Present

PrivaC Female Only Virtual Hackathon

TEAM MENTOR

Bangladesh
2020

National Science Foundation (NSF) Regional Innovation Corporations (I-Corps) Program

ENTREPRENEURIAL LEAD

Texas, USA
2019

Free Market Institute

MCLANE POLITICAL ECONOMY SCHOLAR

Texas, USA
2018 - 2019

College of Arts & Sciences, TTU

STUDENT AMBASSADOR

Lubbock, USA
2018-2019

Society of Physics Students (SPS)

PUBLIC RELATIONS OFFICER (TTU CHAPTER) & MEMBER

Lubbock, USA
2017-2019

The Quark Newsletter, SPS

OFFICER IN CHARGE

Lubbock, USA
2018-2019

Alpha Lambda Delta & Phi Eta Sigma Honor Society (ALD/PES)

SOCIAL COORDINATOR OFFICER (TTU CHAPTER)

Lubbock, USA
2018-2019

Undergraduate Colloquium Series, SPS

INITIATOR AND ORGANIZER

Lubbock, USA
2018

Red Raider Orientation, TTU

ORIENTATION CREW LEADER

Lubbock, USA
2018

Honors & Awards

2025 – 2026	Peer Recognition Award (×3) , Google Quantum AI	Mountain View, CA, USA
2026	Peer Recognition Award (×2) , Google Quantum AI	Santa Barbara, CA, USA
2025	Best Presenter Award , Dornsife Industry Days	Los Angeles, CA, USA
2022 – 2025	GSG Professional Development Fund Award	Los Angeles, CA, USA
2021 – 2026	University of Southern California Dornsife College of Arts, Sciences and Letters Graduate Fellowship	Los Angeles, CA, USA
2017 – 2021	Texas Tech University Presidential Scholarship	Lubbock, TX, USA
2017 – 2021	Dean's Honor List , TTU	Lubbock, TX, USA
2021	Best Talk in Economic Impact , Undergraduate Research Conference, TTU	Lubbock, TX, USA
2021	Best Virtual Presentation in Economic Impact , Undergraduate Research Conference, TTU	Lubbock, TX, USA
2020	Certification of Quantum Excellence , IBM Qiskit	International
2020	TrUE Undergraduate Scholar Project Fund , Center for Transformative Undergraduate Experiences, TTU	Lubbock, TX, USA
2020	Second Place for Best Undergraduate Presenter , Department of Physics and Astronomy, TTU	Lubbock, TX, USA
2020	C.C. Schmidt and Alma K. Schmidt Award in Physics , Physics and Astronomy Department, TTU	Lubbock, TX, USA
2018-2019	Bucy Undergraduate Scholarship Physics Award , Physics and Astronomy Department, TTU	Lubbock, TX, USA
2018-2019	Raiders Who Rock: Pursuit of Excellence Award , Office of Engagement and Transition, TTU	Lubbock, TX, USA
2019	Outstanding Student Presenter , Texas Section of APS	Texas, USA
2019	Best Poster Presenter , Department of Physics and Astronomy, TTU	Lubbock, TX, USA
2019	Certified Tutor, Level II , College Readiness and Learning Association (CRLA)	International
2019	Honorable Mention: Best Undergraduate Poster Presenter , Far West Section of APS, Stanford University	Stanford, CA, USA
2019	TrUE Undergraduate Scholar Project Fund , Center for Transformative Undergraduate Experiences, TTU	Lubbock, TX, USA
2019	TrUE Travel Funds Award , Center for Transformative Undergraduate Experiences, TTU	Lubbock, TX, USA
2018	Silver Medal , University Physics Competition (UPhysC)	International
2017	Gangapadhaya Physics Scholarship Award , Department of Physics and Astronomy, TTU	Lubbock, TX, USA
2017	Glen Mann Physics Scholarship Award , Department of Physics and Astronomy, TTU	Lubbock, TX, USA

Core Competencies & Technologies

Layout & Verification	KLayout, gdsfactory, gdswell, Quantum-Metal, QCCircuits, Calibre nmDRC
PDKs	John O'Brien Nanofabrication Lab @ USC, Lincoln Lab SQUILL Foundry PDK, SkyWater Foundry PDKs, GlobalFoundry PDKs, Google Quantum AI Foundry PDKs
Quantum Measurements	QUA, OPX+, Labber, Zurich Instruments, AlazarTech PCIe Digitizer, PyVISA
RF & Microwave	Ansys HFSS Suite, Ansys Lumerical, AWS Palace, scikit-rf, COMSOL, Elmer, AWR Office, Keysight ADS, tidy3d,
Simulation	femwell
Fabrication & Cleanroom	EBL, Photolithography, Lift-off, RIE, ICP, ALD, Sputtering, CMP, FIB, Dicing, SEM, Metrology
Microwave & Packaging	Altium Designer, Ansys SIwave, RF Board Layout, PCB & Package Design, Wirebonding, Electroplating
Cryogenics	BlueFors, Oxford Instruments, RF Chain Setup, Cryo Filtering, Vacuum Pumps, Leak Detection
Programming Languages	Python, C++, Bash, Rust, Julia
HPC & Cloud	SLURM, OpenMPI, Docker, Kubernetes, AWS, GCP
Backend & Databases	FastAPI, REST, PostgreSQL, MongoDB, Apache Spark, Vercel
Version Control & DevOps	Git, Gerrit, GitHub, GitHub Actions, Argo, Bazel
ML	PyTorch, JAX, HuggingFace, Ray, Scikit-learn, pyKAN, HMMLearn, InterpretML, TensorFlow
LLMs	LangChain, Multi-Agent Orchestration (LangGraph), RAG, Fine-tuning (LoRA/PEFT), Evals & Tracing (LangSmith), Tool calling (SKILLS.md, MCP)

Teaching Experience

University of Southern California	Los Angeles, CA, USA
Teaching Assistant, <i>Fundamentals of Physics II: Electricity and Magnetism</i>	Aug. 2021 - May 2022
- Mentored and led 36 undergraduate engineering students in laboratory sessions - Covered advanced topics including physical circuit implementation, experimental verification of EM fields, and analysis of RC & LC circuits - Supervised hands-on experiments with oscilloscopes, function generators, and resonance studies	

Texas Tech University

TEACHING ASSISTANT, *Introduction to Quantum Information and Computation*

- Developed and delivered interactive Jupyter notebooks using IBM's Qiskit for quantum information education
- Created bi-weekly computational assignments covering quantum algorithms and circuit implementation
- Mentored 25+ students in quantum computing projects and provided weekly office hours support
- Covered advanced topics including quantum teleportation, Grover's Algorithm, VQE, and Jordan's Algorithm

Lubbock, TX, USA

Aug. 2020 - Dec. 2020

TECHniques Center

STEM PEER TUTOR

- Provided specialized tutoring to undergraduate students with learning disabilities
- Achieved Level 2 International Tutor Certification from College Reading & Learning Association (CRLA)
- Completed 670+ hours of student tutoring while maintaining federal confidentiality guidelines
- Tutored advanced topics in Physics, Calculus, Circuits, Programming, and Mathematics

Lubbock, TX, USA

Jan. 2018 - May 2019

TexPREP (Prefreshman Engineering Program)

COURSE INSTRUCTOR

- Designed and delivered curriculum on programming fundamentals using MIT's Scratch IDE
- Introduced middle school students to computational thinking and game design principles
- Managed and trained a team of teaching assistants for after-school tutoring program

Lubbock, TX, USA

May 2019 - Jul. 2019

Outreach & Community Service

2026	Delegate, APS Congressional Visits Day,	Promoted APS's mission to Congress	Washington, DC, USA
2026	Invited Representative, APS Annual Leadership Meeting		Washington, DC, USA
2025	Quantum Engineering Ethics Hackathon Judge		Los Angeles, CA, USA
2025	Delegate, APS Congressional Visits Day,	Promoted APS's mission to Congress	Washington, DC, USA
2025	Organizer and Canvasser, APS Global Physics Summit,	Helped with programming at the APS Village	Anaheim, CA, USA
2025	Invited Representative, APS Annual Leadership Meeting		Washington, DC, USA
2024	Organizer and Speaker, USC Graduate Research Symposium,	Led panels, gave keynote	Los Angeles, CA, USA
2024	Candidate, LA Metro Public Safety Advisory Committee		Los Angeles, CA, USA
2024	Graduate Research Symposium Organizer,	GSG Academic Affairs Committee, USC	Los Angeles, CA, USA
2023 - Present	Reactivated \$30,000 Dornsife Umbrella Funds,	Dornsife Graduate Student Association (DGSA), USC	Los Angeles, CA, USA
2023 - Present	Organized LA Physics Graduate Students Soccer Game,	USC, UCLA, Caltech	LA/Pasadena/Westwood, CA, USA
2023 - Present	Organized Annual Departmental Retreat on Catalina Island,	Graduate Association for Students in Physics (GASP), USC	Los Angeles, CA, USA
2023	Dornsife Soccer Tournament Organizing,	Dornsife Graduate Student Association (DGSA), USC	Los Angeles, CA, USA
2023	Launched "The Dornsife Digest" Newsletter,	Dornsife Graduate Student Association (DGSA), USC	Los Angeles, CA, USA
2023	Organized "Dornsife Write-In," "GSG Family Day," and "Dornsife Picnic Day",	Dornsife Graduate Student Association (DGSA), USC	Los Angeles, CA, USA
2022 - Present	Facilitated Discussions on Student Climate and TA Challenges,	Graduate Student Government (GSG), USC	Los Angeles, CA, USA
2022 - 2024	Representing Dornsife RSOs at GSG Senate Meetings,	Graduate Student Government (GSG), USC	Los Angeles, CA, USA
2022 - 2024	Academic Affairs Committee Member,	Graduate Student Government (GSG), USC	Los Angeles, CA, USA
2022 - 2024	Professional Development Fund Reviewer,	Graduate Student Government (GSG), USC	Los Angeles, CA, USA
2022	Sigma Pi Sigma Congress Poster Judge,	APS, Sigma Pi Sigma	Online
2020 - Present	Training and Professional Development Workshops,	WiP, Texas Tech University	Lubbock, TX, USA
2018 - Present	Volunteering for Wheelchair Dodgeball Events,	South Plains Adaptive Recreation Club	Lubbock, TX, USA
2018 - 2021	Organized Sigma Pi Sigma Physics Poster Session and TTU URC Participation,	Sigma Pi Sigma and Texas Tech University Undergraduate Research Conference (TTU URC)	Lubbock, TX, USA
2018 - 2021	Organized Lubbock High School Science Competition and QuarkNet Program,	Sigma Pi Sigma and Texas Tech University	Lubbock, TX, USA