Phone - (650) 278-7262
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Portfolio - danyamshi.github.io

Education

Master of Translational Medicine
UC Berkeley & UCSF - June 2025
(GPA 3.97)

B.A.Sc in Chemical Engineering
University of Toronto - June 2023
(GPA 3.86)

Skills & Expertise

Engineering
SolidWorks, AutoCAD, Fusion 360, Ansys Structural FEA, Ansys Fluent CFD, MS Project, DOE, Laser Cut, 3D Printing, DFM, Arduino

Programming
ML/AI, NLP, Python, Pytorch, C#, C++, SQL, HTML+CSS, MATLAB, Simulink, VBA, LaTeX, Unity

Data Science
MS Power BI, MS Azure Databricks, MS Power Automate, Minitab, Alteryx, MS Office, SAP BI, Statistics

Medical Device Knowledge
QMS, 21 CFR 820/ISO 13485, ISO 14971, IP, 510(K)+PMA, EHR, V&V, DHF, CAPA

Daniel Yaming Shi

Biomedical engineer with extensive preclinical research, medical device R&D, and data sciences experience in healthcare. Strong analytical, regulatory, and leadership knowledge. Interested in QE, R&D, DS and additional technical positions in the MedTech industry.

Relevant Experience

Stanford Computational Arrhythmia Lab - Research Assistant
[2025 January - 2025 May] (5 mo)

- Engineering prompts and developing an LLM to assess AF burden from cardiology device notes using NLP
- Applying k-means clustering on clinical note embeddings to identify relevant device notes for ground truth dataset

HydroShield - R&D Engineer I
[2024 August - 2025 May] (10 mo)

- Developing a motorized hydrogel injector to reduce off-target damage during thermal tumor ablation (UCSF-UC Berkeley startup)
- Applied mechatronics, linear actuator control, human factors concepts
- Ensured compliance with QMSR (21 CFR 820/ ISO 13485) for proof-of-concept and current V&V studies for future Class II 510(k) clearance

UC Berkeley - Graduate Student Instructor
[2024 August - 2025 May] (10 mo)

- Instructing 200+ students for MCB 32: “Human Physiology”, and NEU C61: “Brain, Mind, and Behavior” 3 times a week
- Achieved teaching evaluations 8% above departmental average for teaching clarity and effectiveness

Johnson & Johnson (J&J) - Digital Transformation Specialist
[2023 May - 2024 July] (14 mo)

- Analyzed 300K+ SAP BI orders to reducing manual steps by 20% via subsequent Python, SQL, and Azure Databricks automation
- Built 8 Power BI dashboards to track SAP/Salesforce KPIs to enable real-time analytics for the business
- Partnered with IT to enhance SAP S/4HANA workflows and global deployment through Agile sprints

UToronto Santerre Lab - Tissue-Engineered Vascular Graft Bachelor Thesis
[2022 September - 2023 April] (8 mo)

- Analyzed effect of GelMA on biomechanics and biocompatibility of cellularized polymeric vascular grafts
- Designed experiments to robustly address research questions
- Applied biochemical assays (DNA, elastin, collagen, GAG), confocal/SEM imaging, uniaxial and suture mechanical tests

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ETH Zürich SRL - Volumetric 3D-Printed Muscle Exchange Researcher
[2022 May - 2022 August] (4 mo)

- Investigated volumetric 3D bioprinting to create contractile thin film muscles for biohybrid robots
- Applied additive biofabrication, electrical field stimulation, confocal imaging, and biomechanical actuation

Advanced Micro Devices (AMD) - Business & Product Management Specialist
[2021 May - 2022 April] (12 mo)

- Coordinated press sampling for 4 global GPU launches (RX 6600 XT, RX6600, RX 6500 XT, RX 6950 XT)
- Oversaw product management by analyzing lifecycle, growth potential, and market competitiveness
- Designed Python, SQL, and VBA scripts to create business case forecasting and pricing tools

ETH Zürich FML - Total Artificial Heart Exchange Researcher
[2020 May - 2020 August] (4 mo)

- Developed an artificial heart medical device prototype on an international team of six European researchers
- Designed 40 ventricular geometries in SpaceClaim/SolidWorks with variations created from Taguchi DOE, simulated in Ansys Structural and Fluent to assess cyclic Von Mises stresses and blood stagnation areas

Leadership Experience

UC Berkeley Vice Chancellor Student Advisory Committee (VCSAC) - Graduate Assembly Representative
[2024 August - 2025 May] (10 mo)

- Representing the Graduate Assembly and the interests of 12,500+ graduate students in monthly advisory discussions with UC Berkeley Vice Chancellor Stephen Sutton, EdD
- Providing student feedback and recommendations for emerging university policies on activism, student affairs, and campus services to promote overall UC Berkeley student experiences

UC Berkeley Graduate Assembly - Department of Bioengineering Delegate
[2024 August - 2025 May] (10 mo)

- Representing 300+ graduate students in monthly legislative meetings to improve campus, city, state, and federal policies regarding student experience, academic development, and funding allocation
- Collaborated with 60 delegates to address key campus issues impacting the graduate community

UToronto Engineering Society - Third Year Chemical Engineering Representative
[2020 May - 2021 April] (12 mo)

- Elected by my year (120 students) for student government and academic representation at the faculty level
- Discussed curricular concerns with professors, held academic town hall meetings between students and
- the department, and organized regular social events 2 times each month

Notable Awards

- MTM Excellence Scholarship (**25,000 USD**) (2024)
- Zeno Karl Schindler Foundation Summerschool Exchange Grant (**2,940 CHF**) (2022)
- ThinkSwiss Research Scholarship from US Embassy of Switzerland in Washington, D.C. (**5,400 CHF**) (2022)
- Featured on UofT's website: https://chem-eng.utoronto.ca/news/cheme-future-leader-daniel-shi/ (2021)
- Ontario Professional Engineers Foundation For Education Undergraduate Scholarship (**1,500 CAD**) (2021)
- Sydney George Harris Leadership Bursary from the University of Toronto (**1,926 CAD**) (2020)
- NSERC Undergraduate Student Research Award (**5400 CAD)** (2019)