

SHERMAN LEUNG
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EDUCATION

Emergency Medicine Resident (PGY-3) 06/2023 – Present
Stanford Hospitals & Clinic, Kaiser Permanente Santa Clara, Santa Clara Valley Medical Center
Clinical Operations and Administration Track

Doctor of Medicine (MD) 09/2019 – 05/2023
Icahn School of Medicine at Mount Sinai, New York, NY
Paul & Daisy Soros Fellowship for New Americans, Mount Sinai Health Partners Population Health Fellow, SAEM Social EM Consensus Conference Award

Masters of Science (MS) in Management Science & Engineering 09/2015 – 12/2016
Stanford University, Stanford, CA
Campus Impact Award for “Inspiring Innovation”

Masters of Science (MS) in Computer Science 06/2015 – on leave
Stanford University, Stanford, CA
Specialization in Artificial Intelligence - left in good standing to work in industry

Bachelor of Science (BS) in Computer Science 09/2012 – 06/2016
Stanford University, Stanford, CA
Kleiner Perkins Fellow, Greylock X Fellow, Intel STS Semifinalist, USA Biology Olympiad Semifinalist

INSTITUTIONAL & COMMUNITY SERVICE

Clinical Operations Committee 05/2024 – Present

- Support workstreams as part of the clinical operations committee. Invited as the only resident perspective on task forces to streamline critical care billing, increasing virtual track usage, and new care delivery programs (tele-SNF, hospital at home - early discharge) to reduce boarding
- Led claims analysis and case management intervention design to reduce unnecessary ED presentations for the Stanford Health plan (SHCA) as only resident invited to working group

Founder & Executive Chair 05/2020 – Present
MD+ (mdplus.community)

- Founded and created a national 501c3 organization to support physician-led innovation and grew to over 4500+ aspiring physician-innovators (medical and students, residents, junior faculty) building hybrid careers integrating clinical medicine and healthcare innovation
- Chair executive team of 20 VPs and Directors to support initiatives across health policy, business, technology, life sciences, and medical devices
- Oversaw partnerships and \$50K in sponsorship from organizations such as American Medical Association, Merck, Roivant Sciences, Town Hall Ventures, AlleyCorp Healthcare, Rock Health

Co-Founder

06/2022 – Present

Emergency Medicine Innovation Collaborative (eminnovationcollaborative.org)

- Co-founded national collaborative on acute care innovation bringing together emergency medicine physicians and health partners from across the United States. Recognized by SAEM as an official interest group with scheduled launch at ACEP 2022 in October.
- Crafted original sponsorship for \$20K from leading EM staffing company to launch an inaugural Acute Care Innovation Challenge to be launched in Spring 2023. Curating a nationally-recognized roster of speakers to lead workshops on Acute Care Health Policy, Social Emergency Medicine, Acute Care Outside the Hospital, and Emergency Department Operations.
- Directing team of 10+ medical students around workstreams for partnership development, mentor/track workshops logistics, and marketing

Admissions Committee Representative

05/2021 – 05/2023

Icahn School of Medicine at Mount Sinai, New York, NY

- Selected as one of three liaisons to represent 30 student committee members and the admissions department. Led recruitment and selection of medical student committee members
- Review prospective medical student applications to the Icahn School of Medicine at Mount Sinai's FlexMed early assurance program and traditional admissions program, making recommendations regarding interview and admissions decisions
- Interview applicants and debrief in weekly admissions committee meetings

Lead Developer, Student Lead

10/2020 – 12/2022

Acute Care Innovation Center (UCSF), San Francisco, CA

- Lead developer behind Discharge Navigator, a *MD Calc* interface to curate social services in discharge and disposition planning
- Created database infrastructure and designed front-end interface to service social service pathways in Homelessness, Substance Use Disorders, and Mental Health. Onboarded two other student leads in creating other interfaces in Food Insecurity, and Medical-Legal Aid.
- Finalist for **2021 Emergency Care Innovation of the Year Award** by CORD

Founder & Chair

02/2021 – 04/2022

Social EMpathy (socialempathy.carrd.co)

- Founded and established national collaborative bringing together 50 community stakeholders, researchers, innovators, and frontline workers to sustainably address social determinants of health in the emergency department.
- Organized inaugural roundtable and directed publication of playbook on addressing COVID-19 vaccine equity and hesitancy for underserved communities
- Supervising author on *EM Resident* opinion piece summarizing insights from thought leaders in COVID-19 vaccine equity and distribution in the ED

Population Health Fellow

5/2021 – 08/2021

Mount Sinai Health Partners, New York, NY

- Awarded population health fellowship to lead work in integrating behavioral health and primary care under the direction of Chief Population Health Officer, Dr. Rob Fields, and Director of Behavioral Health Population Management, Dr. Anitha Iyer

- Led exploration of clinician-reported PHQ-9 screening and investigation into patient-facing digital tools for depression screening.
- Supported financial modeling of medical and mental comorbidities and integration with behavioral health network company, Headway Health.

Vice Chair

02/2020 – 06/2021

Diversity & Innovation Hub, Mount Sinai Health System, New York, NY

- Led 30+ team as inaugural Vice Chair to Mount Sinai venture focused on accelerating and launching innovative solutions to address social determinants of health that perpetuate disparities in health and health care.
- Led recruitment and organizational design of design teams across the medical school, trainees, and faculty in initiatives spanning entrepreneurship, (high school) education, mentorship, thought leadership publication, roundtable
- Created DIH Pipeline to support aspiring women and BIPOC entrepreneurs and managed \$15K budget in awarding innovation grants to winning teams

Co-Founder, Healthcare Lead

03/2020 – 08/2020

Off Their Plate (501c3), New York, NY

- Served on the founding team for New York City chapter of non-profit serving nutritious meals to frontline healthcare workers while restoring economic relief to local restaurants at the height of the COVID-19 pandemic
- Coordinated and delivered 10K meals/week to frontline healthcare workers at hospitals, nursing homes, and community health centers across the 5 boroughs
- Represented team of healthcare liaisons across 9 major cities on the executive board.
- Spearheaded efforts to heat-map areas of most need and also the non-profit's evolution to serving food-insecure populations through federally qualified health centers and community health centers.
- Supported collective efforts in raising over \$6M through national and local partnerships

Lead Web Developer and Designer

04/2020 – 07/2020

COVID-19 Health Literacy Project, (communityhealthliteracyproject.org)

- Founding member of a grassroots medical student-led organization to create and translate accessible COVID-19 information into different languages to help all patients know when, and how to seek care
- Sole developer and designer of our original website (covid19healthliteracyproject.carrd.co) allowing for the download of fact sheets created in partnership with Harvard Health Publishing in 40+ languages

Co-President

04/2020 – 06/2021

Emergency Medicine Interest Group, Icahn School of Medicine at Mount Sinai, New York, NY

- One of three student leads behind student elective “Introduction to Emergency Medicine” and curated events introducing medical students to Emergency Medicine, including virtual ED shadowing, EKG night, and suture skills workshops.
- Led the organization and virtual launch of AAEM's largest Northeast Symposium (over 100 attendees) with a keynote address delivered by Dr. Leana Wen in addition to renown speakers in Social EM, Global EM, and Public Health.

Clinical Innovation Extern

06/2018 – 09/2018

Massachusetts General Hospital (Healthcare Transformation Lab), Boston, MA

- Part-time product design lead leading development of a clinical trial matching tool (MatchRx) in collaboration with pharmaceutical companies and the department of Cardiology
- Co-created and led industry-facing partnership strategy to drive inbound onboarding and sandbox testing for pilot partnerships with digital health companies

Co-Founder, Co-President

03/2014 – 06/2016

Stanford Healthcare Innovations in Future Technologies, Stanford, CA

- Co-founded and established Stanford University's flagship healthcare innovation group bringing together students studying pre-medicine, computer science, product design, and economics to work on interdisciplinary initiatives in healthcare
- Co-directed executive team of 10 VPs leading a variety of initiatives across roundtables, innovation challenges, datathon, external relations, and internal relations.
- Led three iterations of healthcare innovation competitions across the medical, business, design, and engineering schools to support interdisciplinary teams. Raised and awarded over \$50K in prizes.
- Recognized by Stanford Activities & Leadership office with a **Campus Impact Award for Inspiring Innovation**. The organization is in its ninth successful year and I proudly sit on board of advisors

Founder, Director

09/2014 – 04/2016

TreeHacks Health, Stanford, CA

- Co-founder of TreeHacks, largest student-run hackathon on the west coast in terms of attendance and sponsorship. Managed 4-person sponsorship team to raise over \$200K in the inaugural year.
- Created and designed a healthcare vertical in my second on leadership by raising \$20K from healthcare companies and recruiting mentors from the medical school and healthcare industry to advise student teams.

COMMITTEES & BOARDS

- **Stanford ED Clinical Operations Committee** (2024-Present)
- **Stanford Value Based Care Champions** (2024-Present)
- **Stanford EM Partnership Program** (2023-Present)
- **Stanford Emergency Medicine Innovation Symposium** (Judge: 2022, Panelist: 2023)
- **Emergency Medicine Innovation Collaborative** (2022-2023)
- **MD+ 501c3** (Executive Chair: 2020-Present)
- **MD Admissions Committee**, Icahn School of Medicine at Mount Sinai (2022-2023)
- **Diversity Innovation Hub**, Icahn School of Medicine at Mount Sinai (Advisor: 2020-2023)
- **MD Program Curriculum Redesign Committee**, Icahn School of Medicine at Mount Sinai (2021-2023)
- **Stanford Healthcare Innovations in Future Technologies** (Advisor: 2015-Present)
- **President's Innovation Challenge @Harvard University- Healthcare** (Judge: 2018-2020)
- **Fortuna Health, Bunkerhill Health, Kubera Health, Joyful Health**(Advisor: 2022-Present)

- **Reside Health** (Board Observer: 2020 – 2021)

HONORS

- **Social Emergency Medicine Consensus Conference Award**, Society for Academic Emergency Medicine (2021)
- **Tylenol Scholarship Semifinalist**, Johnson & Johnson Tylenol Scholarship Fund (2021)
- **PD Soros Fellow**, Paul and Daisy Soros Fellowship for New Americans (2020)
- **Mount Sinai Population Health Fellow**, Mount Sinai Health Partners (2020)
- **40 under 40 Healthcare Innovators Award**, MedTech Boston (2018)
- **Stanford Campus Impact Award**, Stanford University Student Activities & Leadership (2017)
- **Kleiner Perkins Engineering Fellow**, Kleiner Perkins (2016)
- **Greylock X Entrepreneurship Fellow**, Greylock Partners (2015)
- **TEDx Stanford Showcase Recipient** (2014)
- **Intramural Research Training Award**, National Institutes of Health (2012, 2013)
- **USA Biology Olympiad Semifinalist**, USABO (2012)
- **Intel STS Semifinalist**, Intel Science Talent Search (2012)
- **Maryland Distinguished Scholar - Talent in the Arts**, Maryland Higher Education Commission (2012)

RESEARCH, PRESENTATIONS, & PUBLICATIONS

Peer-reviewed Publications

- **Leung S**, “Emergency Medicine Leadership & Innovation: Evolving and Future Areas of Innovation” *Practice Essentials for Emergency Medicine by ACEP/EMRA*. 2024 Spring. <https://www.emra.org/about-emra/publications/practice-essentials>.
- Grade M, Stark N, Emanuels D, Lu A, Doshi J, **Leung S**, Peabody C.. Discharge Navigator: Implementation and Cross-Sectional Evaluation of a Digital Decision Tool for Social Resources upon Emergency Department Discharge. *Western Journal of Emergency Medicine*, 2022 Aug 11 23(2). <https://doi.org/10.5811/westjem.2022.3.56639>
- Grade M, Stark N, Emanuels D, Lu A, **Leung S**, Peabody C. Impact of an Electronic Decision Tool for Social Resources upon Discharge. *Annals of Emergency Medicine*, 2021 Oct; 78(4), Supplement S6
- Shah R, Della Porta A, **Leung S**, Samuels-Kalow M, Schoenfeld EM, Richardson LD, Lin MP. A Scoping Review of Current Social Emergency Medicine Research. *Western Journal of Emergency Medicine*. 2021 Oct 27;22(6):1360-1368.
- Gorman J, Soto C, Yang MM, Davenport TM, Guttman M, Bailer RT, Chambers M, Chuang GY, DeKosky BJ, Doria-Rose NA, Druz A, Ernandes MJ, Georgiev IS, Jarosinski MC, Joyce MG, Lemmin TM, **Leung S**, Louder MK, McDaniel JR, Narpala S, Pancera M, Stuckey J, Wu X, Yang Y, Zhang B, Zhou T; NISC Comparative Sequencing Program, Mullikin JC, Baxa U, Georgiou G, McDermott AB, Bonsignori M, Haynes BF, Moore PL, Morris L, Lee KK, Shapiro L, Mascola JR, Kwong PD. Structures of HIV-1 Env V1V2 with broadly neutralizing antibodies reveal commonalities that enable vaccine design. *Nature Structural Molecular Biology*. 2016 Jan;23(1):81-90.
- **Leung S**, A musical model of organic compounds. *Stanford Undergraduate Research Journal*. 2014 Apr; 13(1):78-83

- McLellan JS, Chen M, **Leung S**, Graepel KW, Du X, Yang Y, Zhou T, Baxa U, Yasuda E, Beaumont T, Kumar A, Modjarrad K, Zheng Z, Zhao M, Xia N, Kwong PD, Graham BS. Structure of RSV fusion glycoprotein trimer bound to a prefusion-specific neutralizing antibody. *Science*. 2013 May 31;340(6136):1113-7.

Poster Presentations

- **Leung S**, Feldman D. Delivering a Compelling Pitch. ACEP 2023: HackED Innovation Challenge. October 2023
- **Leung S**. Applying the Emergency Medicine Mindset to Product Management. ACEP 2022. October 2022
- Emanuels D, Stark N, Grade M, Lu A, **Leung S**, Peabody C. Discharge Navigator: A Digital Tool to Address Disparities in the Emergency Department. UC San Francisco Health Disparities Research Symposium, May 2021
- **Leung S**, Lu A, Naeem A, Reszczyński O. Social EMpathy: national collaborative for Social Emergency Medicine Innovation. Virtual presentation: Projects in Progress. Society for Academic Emergency Medicine, May 2021.
- **Leung S**, Fargnoli B. MD++: A Community of Aspiring Physician-Innovators. Icahn School of Medicine at Mount Sinai Institute of Medical Education, Education Research Day, March 2021.

In Review

- Parambath A, Akiti K, **Leung S**, Volpp K, Value of Venture Exposure During Clinical Training in the Age of AI. *New England Journal of Medicine Catalyst*
- Canarick J, Liou L, Balaji N, Naeem A, **Leung S**. MD+: A Community-Centered Model to Support Interdisciplinary Training for Medical Students. *New England Journal of Medicine Catalyst*

Scholarship Without Peer-Review

- Kearney R, Reszczyński O, Friedman N, Gelmann D, Naeem A, Lu A, **Leung S**. COVID-19 Vaccine Equity and Distribution in Emergency Departments. *EM Resident*. Apr 10 2022.
 - Published summary of insights from SocialEMpathy roundtable featuring thought leaders in COVID-19 vaccine equity and ED vaccination delivery
- **Leung S**. Re-designing Emergency Care: How might we build a next-generation ED with technology focused on improving access, efficiency, equity? *Margins of Medicine*. Jan 2022
- **Leung S**. Value-based Emergency Medicine: How can Emergency Medicine be better integrated into value-based care? *Margins of Medicine*. Feb 2021
 - Selected pieces on acute care model design from independently published online newsletter covering disparities in healthcare and proposing policy changes or care delivery model innovation.
 - Organically scaled to a readership of 500+ subscribers (physicians, medical students, digital health operators, healthcare investors) with 12000+ reads since launch in 2021.

PROFESSIONAL WORK EXPERIENCE & PRIOR EMPLOYMENT

a16z bio+health Venture Fellow

09/2022 –Present

Andreessen Horowitz, Menlo Park, CA

- Part-time member of investment team specializing in clinical AI, value-based emergency medicine, Medicaid engagement, Smart Operating Room, and specialty value based care

- Led or co-led 5 investments: Counsel Health (Clinical AI), Fortuna Health (Medicaid), Alchemy Health (340b Pharmacy Enablement) and two unannounced investments
- Community-building around product leaders, clinical-operators, chief of staffs in healthcare
- First venture fellow and only practicing physician dedicated to healthcare deal team to support investment decisions in transforming care delivery

Healthcare Investor

06/2019 – 09/2022

AlleyCorp Healthcare, New York, NY

- Founding investor for \$100M physician-led venture capital firm focused on healthcare. Leading firm's investment theses in specialty value-based care, managed medicaid, hospital at home
 - Led seed investment into physician-founded pulmonary rehab company (Ansible Health)
 - Supported investments into Vori Health (Musculoskeletal Care), Clarium (Hospital Supply Chain Software), and care management automation (Memora Health)
- Lead incubation teams of 3-4 clinicians and technologists exploring new care delivery models enabling value-based care
 - Co-incubated value-based primary care company (Reside Health) delivering primary care for large employers. Supported creation of a value-based cardiology company focused on post-MI and CHF management, and personal finance platform for clinicians
 - Led month-long exploration of value-based emergency medicine, medicaid member engagement, virtual acute care triage models

Enterprise Software Investor

09/2018 – 07/2019

Underscore VC, Boston, MA

- First investment associate hired to lead academic ecosystem strategy and investment theses in human-centered artificial intelligence and develop initial healthtech SaaS thesis.
- Executed seed investments into machine-learning business intelligence company (Ikigai Labs) and supported investments into insurance technology (Hi Marley) and future of work (Macro)
- Established UFirst Accelerator to support 10 pre-seed investments in graduate school student-founders across HBS, MIT, Northeastern, and Boston University.

Product Manager

01/2017 – 09/2018

PatientPing (*acquired for \$500M and renamed Bamboo Health*), Boston, MA

- Led design and launch of hospital care coordination product, *Stories*, to enable EDs to coordinate disposition and discharge planning - our product supported 1M+ patients across 300+ health systems nationally. Led and managed team of 6 engineers, designers, and clinicians
- Scaled product team from 1 to 10. Reported directly to co-founder and CEO before recruiting Head of Product. Served as founding member of the diversity & inclusion committee.
- Launched and led development of new business lines around Bundled Payments for Care Improvement Advanced and Readmission Risk stratification
- Work at PatientPing and in the broader Boston healthcare product ecosystem recognized by MedTech Boston as youngest awardee of “**40 under 40 Healthcare Innovator**” in 2018

Product Manager, Mobile Developer

06/2016 – 12/2016

Mango Health (*acquired by TrialCard*), San Francisco, CA

- Piloted first provider-facing product feature at the Stanford Multiple Sclerosis Center

- Led two-person team in structuring product partnerships with Express Scripts which led to their strategic investment as the largest US pharmacy benefit manager
- Launched features improving medication search and increased search rate for drugs by 12%
- Android mobile development lead on core features around navigation and healthy habit enablement

Head of Product

02/2016-12/2016

Siha Health

- Served part-time as acting Head of Product to YCombinator company focused on building equitable care delivery models in Kenya.
- Managed remote team of 10 engineers across Stanford and Nairobi and designers to launch flagship clinical telemedicine product. Oversaw product strategy and support the company through acceptance and incubation through the YCombinator Fellowship.

Student Lecturer

09/2015 – 12/2016

Stanford University, Stanford, CA

- Created and taught two new Computer Science courses: CS96SI (iOS Development for Mobile Health) and CS 41 (Stanford Python). Stanford Python second student-initiated course in history of Computer Science department given permanent status in the course directory
- Oversaw over 1000 undergraduate and graduate students in teaching roles for 7 CS courses. Head Course Assistant of CS 147 (Introduction to Human-Computer Interaction), Course Assistant for CS 377U (Understanding Users), CS 193C (Client-side web Technologies), CS 194H (Human Computer Interaction Capstone Project), CS 42 (Contemporary Javascript), CS106A (Programming Methodologies) and CS106B (Programming Abstractions)

Mobile Development Intern

06/2015 – 09/2015

Khan Academy, Mountain View, CA

- Founding Android engineer on a mobile development team launching low-connectivity offline products for developing countries. Launched on Android Store to 4.5/5 rating and 1M+ downloads in its first year.
- Open sourced project for students to play and share computer science projects on mobile devices

NIH Intramural Research Training Award Intern

06/2012 – 08/2012, 06/2013 – 08/2013

Vaccine Research Center (Structural Biology Section) Bethesda, MD

- 2012: Designed and implemented crystallography experiments characterizing the pre-fusion form of RSV. Work was published as third author on *Science* publication, led to GSK vaccine
 - Worked directly under (then post-doctoral researcher) Dr. Jason McLellan who solved crystal structure of SARS-CoV-2 M-spike which directly led to Moderna mRNA vaccine
- 2013: Developed experiments characterizing broadly neutralizing antibodies against HIV-1 Env V1V2. Work recognized as a author in *Nature Structural & Molecular Biology*

ADDITIONAL SKILLS & TRAINING

- **Hobbies:** Rock climbing, Mixology, Basketball, Crossword Puzzles
- **Performance:** Jazz Piano, Violin, Voice (Tenor in College R&B Acapella Group)
- **Programming Languages:** Python, JavaScript