YASH LAHOTI

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EDUCATION

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

Doctor of Medicine Candidate (MD) - MS1 **Aug '22 - May '26**

University of Pennsylvania | *School of Engineering and Applied Science* | **Philadelphia, PA**

Master of Science in Engineering (MSE): Electrical Engineering | **Concentration:** Artificial Intelligence **Aug '21 - Dec '21**

Bachelor of Applied Science (BAS) : Biomedical Science | **Concentration:** Biomedical Data Science **&** Medical Devices **Aug '17 - May '21**

TECHNICAL EXPERIENCE

Chief Technology Officer | ***Co-Founder of SpineSight****: Targeted Healthcare Innovation Fellowship* | *New York City, NY* **Sept '22 - Present**

- Technical lead behind novel AI-driven spine analytics platform providing advanced radiographic annotations of spinal parameters
- Partnered with 5+ neuroradiologists/surgeons on advisory board to develop novel clinical metrics for longitudinal disease tracking
- Selected for National Science Foundation I-Corp's and on track to raise $100,000 in initial funding by August '23
- Interviewed 150+ patients, clinicians, insurance providers, and digital health startup investors for customer/market discovery
- Selected as finalist out of 60+ innovation teams competing at Mount Sinai Innovation Partners Pitch Challenge

Senior Machine Learning Research Scientist | ***Cho and Kim Spine Lab****: Icahn School of Medicine* | *New York City, NY* **Aug '22 - Present**

- Generated radiographic annotations and measurements for 300+ scoliosis studies investigating longitudinal disease progression
- Collaborate with Radiology IT to build custom pipeline for high-throughput model inferencing of 10,000+ studies across health system
- Managing team of 5+ medical students and nationally selected as 1 of 100 projects to be presented at American Geriatrics Society.
- Manuscript pending approval investigating AI model performance in clinical trial against orthopedic surgeons

Instructional Designer | ***Course Director for Artificial Intelligence in Medicine @*** *Icahn School of Medicine* **Feb '23 - Present**

- Designed and taught 8 interactive coding + speaker-series lectures for 50+ graduates students at Mount Sinai to evaluate deep learning model training/performance, identify clinical risks/bias, and ideate how AI will augment future clinical decision making
- Redesigning medical curriculum alongside Sinai education faculty board to integrate AI competency into Class '27 medical education
- Organize summer bootcamp for medical students to gain programming competency and build ML tools for clinical research

Machine Learning Engineer | ***Qeexo AutoML*** | *Pittsburgh, PA* **Feb '22 - Aug '22**

- Pioneered the healthcare division healthcare research division at Qeexo, investigating continuous imputation of hemodynamic waveforms from non-invasive ECG measurements using deep learning for outpatient monitoring
- Managed team of 5+ engineers and cardiologists to design, validate, and commercially deploy toolkit for ECG waveform processing, patient-level stratification, and custom neural network architecture design into AutoML product
- Presented weekly at Executive Staff meetings to discuss technical progress/barriers to productization and commercialization strategy

Technical Lead | ***OtoAI: Digital Otoscope Solution:*** *Capstone Design Project* |*Philadelphia, PA* **May '21 - Feb '22**

- Engineered end-to-end deep learning platform for automated classification and analysis of otoscope medical images
- Implemented physician-friendly UI (OpenCV + Tkinter) for image collection/data management, autogeneration of EHR-compatible patient reports, and saliency map analysis to assist end-users with model interpretability
- Organized clinical trials with 100+ patients to collect patient data and validate model performance against ENT specialist

Research Engineer | *Perelman School Of Medicine: Neurosurgery* | *Philadelphia, PA* **Jun '19 - Dec '21**

- Collaborated with neurologist to design custom 3D-printed surgical head caps from MRI to secure chronically implanted electrodes
- Designed ML pipeline to automate analysis of 4000+ hours of 64-channel electrode recordings of the brain
- Develop wireless driving system to remotely and non-invasively reposition implanted electrode during electrophysiology experiments

AWARDS AND PROGRAMS

2nd Place MSIP (Mount Sinai Innovation Partners) Pitch Challenge | *New York City, NY* **May '23**

- SpineSight selected from 60+ teams from panel of VC partners and industry leaders to receive $10K funding for prototyping

MSTAR (Medical Student Training in Aging Research) Grant | *National Institute For Aging (NIA)* | *New York City, NY* **Jan '23**

- National 12-week training program to receive clinical exposure and $8K funding for pursuing aging-related research in geriatrics.

OtoAI: Technology and Innovation Prize | *University of Pennsylvania School of Engineering* **May '21**

- Selected out of 100+ teams for best use of T&I after product pitch and demonstration to a panel of 60 engineering industry leaders

Neuromatch: Computational Neuroscience Program **July '20**

- *S*elected from 7,000+ global applicants to study computational neuroscience theory at *MIT Center for Brain Minds+Machine*

TECHNICAL SKILLS

Programming: Python, Pytorch, Scikit-learn, R, MATLAB, SQL, C++, SolidWorks, Arduino, Altium
Laboratory Skills: Optogenetics, Calcium Imaging, Immunohistochemistry, Cell Culture