

YASH LAHOTI

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EDUCATION

ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI
Doctor of Medicine Candidate (MD) - MS3

New York, NY
May 2026

UNIVERSITY OF PENNSYLVANIA / School of Engineering and Applied Science
Masters of Science in Engineering: Electrical - Artificial Intelligence & Machine Learning
Bachelors of Applied Science: Biomedical Science

Philadelphia, PA
Dec 2021
2017 - 2021

EXPERIENCE

CHIEF TECHNOLOGY OFFICER

New York, NY
2022 - Present

SpineSight - Targeted Healthcare Innovation Fellowship

- Spearheaded the technical development of SpineSight, an AI-driven platform that enhances quantification and diagnosis of spinal cord diseases, automating MRI measurements and reducing patient diagnostic time by 85% (12 months)
- Coordinated a multidisciplinary team of neurosurgeons and neuroradiologists to co-develop 140+ novel clinical metrics, bringing standardization to spinal disease tracking and enabling faster, personalized treatment pathways for patients
- Pioneered market research through over 150+ interviews with clinicians, patients, and healthcare stakeholders, driving product-market fit and ensuring that SpineSight met critical clinical needs and identify point-of-access in clinical workflow

LEAD AI SCIENTIST & RESEARCH DIRECTOR

New York, NY
2022 - Present

Cho/Kim AI Spine Lab

- Directed engineering and experimental design of 15+ active AI research initiatives, delegating responsibilities across 25 graduate students and development of 3 software prototypes into clinician workflow at Mount Sinai
- Established a proprietary longitudinal database of 1,200+ scoliosis cases, radiographic annotations and clinical outcomes to train AI models and evaluate against 10,000+ active patients across health system
- Devised a spine-search algorithm to match surgical candidates with historical case records, delivering real-time insights to improve surgical decision-making; actively used by 3 surgeons at Mount Sinai Spine for preoperative planning

COURSE DIRECTOR AND EDUCATOR

New York, NY
2022 - 2024

Course Director for Artificial Intelligence in Medicine

- Administered and taught the first iteration of AI education for 50+ medical students, developing a curriculum of 8 interactive coding workshops and F500 industry leader speaker-series lectures to educate how AI can augment clinical decision-making
- Consulted with Sinai's education faculty board to redesign the medical curriculum, integrating AI competencies and preparing future physicians to assess strengths of recognize potential ethical risks in AI-driven decision-making

MACHINE LEARNING ENGINEER

Pittsburgh, PA
2021 - 2022

TDK SensEI

- Constructed a TinyML solution for predicting invasive cardiac pressures using non-invasive ECG data, based on over 2000+ hours of patient sensor data, achieving 95% prediction accuracy for cardiac pressure in an outpatient monitoring facility
- Supervised interdisciplinary collaboration between cardiologists and engineers, ensuring seamless integration of clinical objectives into the engineering design process; managed project timelines and coordinated efforts to meet development goals
- Prototyped and tested a fault detection model to perform electric motor quality control during production; identified anomalies with 98% accuracy and increased faulty product identification by 20%

MACHINE LEARNING RESEARCH ENGINEER

Philadelphia, PA
2019 - 2021

Perelman School Of Medicine: Neurosurgery

- Engineered custom 3D-printed surgical head caps from pig MRI skull reconstruction to secure implanted brain electrodes
- Architected a ML pipeline to automate analysis of 4000+ hours of 64-channel electrode recordings of the hippocampus and assist neurologists in classification of epilepsy, achieving 98% ROI identification and 3-fold increase scans processed per hour

AWARDS AND PUBLICATIONS

- AI Panelist – Invited Faculty: 6th Prostate Cancer Symposium & World Congress of Urologic Oncology ('24)
- 2nd Place Pitch Challenge | *MSIP (Mount Sinai Innovation Partners)* - **\$10K Grant**
- NSF National I-Corps Grant – *SpineSight* selected from 100+ teams | *NSF Entrepreneurial Training Program* - **\$50K Grant**
- Automated Scoliosis Classification from EOS Full Body Imaging: A Deep Learning Approach with RadImageNet (NASS '24)
- Spine Search: Using Dynamic Time Warping to Find Patterns in Sagittal and Coronal Spinal Alignment (EOA '24)

ADDITIONAL INFORMATION

- Programming: Python, Pytorch, Langchain, Django, React, R, MATLAB, SQL, C++, SolidWorks, Altium, Arduino
- Developed Technologies: Agentic AI, LLM/RAG, Computer Vision, Embedded Machine Learning, Time Series Classification
- Interests: Central Park Cyclist, Heat/Cold Shock Therapy, Mindfulness/Meditation Practitioner, Masala Chai Enthusiast