Aaditya Shidham

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Education

University of Pittsburgh School of Medicine -- Current MD Candidate

- Matriculated in August 2020, MD in progress

Stanford University - B.S. in Computer Science (2015), M.S. in BioMedical Informatics (2016)

- Thiel Fellow Finalist // Tau Beta Pi Engineering Honors // SHS Fellow (approx five selected nationally per year)
- MCAT: 36 (97th percentile) // GRE: 169 / 170 V, 168 / 170 Q, 5.5 / 6 AWA (97th percentile overall)
- Health informatics data research under Prof Kundaje, Prof. Melosh and Prof Khatri (assorted publications)

Professional Experience

Co-Founder, Savvy (Director of Engineering) (2018-2020) (Incubated at Stanford StartX)

⇒ Savvy was a pricing analytics platform for e-commerce storeowners.

- Hired and managed engineers on dev team. Managed backend migration from mongoDB to PostgreSQL to effectively scale very large enterprise loads.
- Launched data-driven platform for bug tracking through Javascript control flow graph (CFG). This platform enabled dev team to find and fix bugs at a dramatically faster rate.
- Managed code deployments for custom integration and plugin development for large storeowners. Built out Heuristic Mapper (HM) to allow dev team to accelerate integration with new clients.
- Leveraged A/B testing platform to increase app install rate by 45%. Analyzed traffic metrics to discover and promote platform to nontraditional SMBs outside target audience.
- Negotiated pilots for dozens of SMBs. Negotiated first large enterprise letter of intent (LOI) with Asian unicorn retail conglomerate [7 figures].
- Incubated through Stanford StartX accelerator. (F18 / P19 class)

Advisor, Assorted Data-Driven Health-Focused Startups (2020)

- Help new healthcare startup founders connect and network with key advisors and investors. Connect with industry leaders in healthcare space to help startups consider new strategy and sales leads.
- Board observer for Templescape Inc. Further references available.

Co-Founder, Apex Labs (Director of Data & Informatics) (2017-2018) (Incubated at VenRock as an EIR)

⇒ Apex Labs created AI models for foreign federal governments to detect corporate tax evasion.

- Recruited, hired and managed all engineers on both data science and software engineering teams; scaled the teams from zero to eight engineers; drove daily / weekly tech team stand-ups on-site.
- Launched feature engineering pipeline in Python to convert very large amounts of invoice data to feature tables for hypothesis testing. This pipeline multiplexes workloads across logical clusters and physical cores inside very large multicore servers. Patent pending.
- Launched Docker + Anaconda + Jupyter stack for AI model building. Built the Model Assessment Pipeline (MAP) to allow engineers to assess the strength of the model and throw out models that are weak.
- The MAP process was successful in finding very effective models. Pilot trials green-lit a large pending contract with federal agencies [6 figures].
- Team built out core graph algorithms and feature engineering infrastructure to detect money laundering at scale. Patent-pending.

Entrepreneur-In-Residence, VenRock (2016 - 2018)

- Conducted need-finding interviews with industry leaders on applied data plays (outside of my academic healthcare focus)
- Founded and developed Benuku (SSH-HTTP proxy for in-browser data science) as a result of the EIR position
- Built out Apex Labs as a result of the EIR position

Software Engineer, Google (2016)

- Building testing and developer tools for Ads & Commerce.
- Team ran and iterated along an individually driven, agile methodology. Simulated testing tools on a virtual subsystem of Google's infrastructure.

BioInformatics Research Intern, NASA Ames (2012)

- Used gene editing techniques to attach metal-binding peptide to flagella of bacteria. Predicted the effects of gene regulation on molecular circuitry.

Summer Research Fellow, Halcyon Molecular (2011)

- Created Fathom, a platform that allows scientists the ability to interpret large amounts of scanning electron microscopy data.

Academic Experience

Clinical Shadowing experiences (2014-)

- Many shadowing experiences. Two major highlights outside of Palo Alto or Pittsburgh clinics:
  - Shadowed Dr Yellamraju's outpatient primary care practice in Athens, Ohio. Reference available.
  - Shadowed Dr Singh's transplant nephrology team in Shreveport, Louisiana (part of LSU). Patent pending device for a dialysis fistula needle (62/572481) later developed based on this experience. Reference available.

Dr. Kundaje Lab, Stanford, Research Fellow (2016)

- Trained neural networks for imputing chromatin tracks. Developed infrastructure for supporting machine learning in-memory at scale.
- Curricular work during priod also predicted healthcare utilization from geo-tagged mobile phone search logs (PMID: 27570641).

Dr. Khatri Lab, Stanford, Research Fellow (2014-2016)

- Applied spectral methods to visualize high dimensional labelled biomedical data. Wrote an R package that is used by MDs/PhDs to visualize labelled biomedical data; lead to publication in STM that has since been highly cited (PMID: 25972003)

Dr. Melsoh Lab, Research Fellow (2013-2014)

- Using digital circuit simulation tools (ngspice) to model a novel neural interface

Online Viterbi - Based Score Following Software for Musicians

- Built applied Viterbi application to allow musicians to follow large musical scores on their phone

Co-creator, aidPIN initiative (2012-2014)

- Mobile app for EMTs. Leveraged facial recognition to provide actionable data on the scene of an accident.
- Wrote signup and billing flows, drove product interviews with medical staff, co-lead weekly standups.

Team Technology Fellow, Associated Students of Stanford Executive Technology

Organizer, Stanford Medical Innovation Conference in Medical Robotics

Stanford Daily News Columnist

Papers & Patents

Shidham, A. (2017). "Dialysis fistula needle," U.S. Provisional Patent Application Number 62/572481

Agarwal, V., ..., Shidham, A... Shah, N. H. (2016). Hospital visits from geo-tagged Internet search logs. AMIA Joint Summits on Translational Science Proceedings. AMIA Joint Summits on Translational Science, 2016, 15–24.

Sweeney, T. E., Shidham, A., Wong, H. R., & Khatri, P. (2015). A comprehensive time-course-based multicohort analysis of sterile inflammation reveals a robust diagnostic gene set. Science Translational Medicine, 7(287), 287ra71.

Sweeney, T. E., Shidham, A. & Khatri, P. (2015). Sepsis diagnostics from a gene set. Critical Care Medicine 42 (12), A1601.

Costinean, S... Shidham, A. ... Croce, C. M. Src homology 2 domain-containing inositol-5-phosphatase and CCAAT enhancer-binding protein beta are targeted by miR-155 in B cells of Emicro-MiR-155 transgenic mice. Blood, 114(7), 1374–1382.