Nikhil Bikhchandani

Software engineer with 10 years of experience in machine learning and data science looking to leverage expertise in building high-performing teams to tackle novel, challenging problems.

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818.585.9733 | US Citizen

Experience

LeaslyAI | Cofounder   May 2024 - Dec 2024 | Remote

AI leasing agent and property manager for small to midsize properties
- As technical co-founder, I built the MVP, gathered interest from investors, and participated in sales calls.
- Ultimately, fast-failed because poor product-market-fit in an industry that suffers from the principal-agent problem.

Syllable Inc | Head of Data   April 2021 - April 2024 | Remote

Series C healthcare tech startup automating call center operations for hospital systems
- Led and mentored a team of four engineers.
- Architected the end-to-end data infrastructure that scaled the company 10x to 1M phone calls / month, processing terabytes of data.
- Worked cross-functionally with product, engineering, and ops teams to define and prioritize data requirements, ensuring data availability for key stakeholders.
- Developed and executed data science initiatives, leveraging LLMs and other machine learning techniques to extract actionable insights and drive business growth.

Blumio | Freelance Data Scientist   Aug 2020 - April 2021 | Remote
- Built models to estimate blood pressure from FMCW radar signals.
- Designed and implemented a multistage modeling pipeline for local and cloud-based development.

Udacity | Instructor   Oct 2019 – May 2020 | Mountain View, CA
- Designed and developed a course on "AI for Wearables" as part of the "AI for Healthcare" nanodegree.

Verily Life Sciences | Data Scientist   Oct 2015 – Oct 2019 | South San Francisco, CA
- Built ML and signal processing algorithms across cardiovascular, neurodegenerative, diabetes, and sleep domains from PPG, IMU, ECG, and CGM signals.
- Worked cross-functionally with product managers and clinicians to design and implement data-driven features that reach thousands of users.
- Served as "infrastructure technical lead" for a team of other data scientists to advocate for and co-design software infrastructure that would multiply our team's impact.

Google[x] Life Sciences | Software Engineer   Sept 2014 – Oct 2015 | Mountain View, CA
- Signal processing of PPG signals. Built novel signal acquisition control loop optimizing front-end sensor parameters (gain stages, led brightness, etc.) in firmware.
- Developed algorithms for ECG signal processing. QRS complex detection, noisy waveform detection, arrhythmia detection (atrial fibrillation).
- ML based Multiple Sclerosis disease state estimation.

Education

CARNEGIE MELLON UNIVERSITY   May 2014 | Pittsburgh, PA

MS in Electrical and Computer Engineering   Carnegie Institute of Technology Research Honors
BS in Electrical and Computer Engineering   Dean's List: Fall 2010, Spring 2011, Spring 2012, Spring 2014

Skills

Domains: Signal Processing • Machine Learning • Time Series • Physiologic Signals • Medical Devices • Wearables • NLP
Technologies: Apache Beam • Apache Spark • GCP • Pandas • NumPy • Scikit-learn • AWS • Git • TensorFlow • SQL

Patents and Publications

System and methods for integrating feedback from multiple wearable sensors (2016). **Active.**

Continuous detection and monitoring of heart arrhythmia using both wearable sensors and cloud-resident analyses (2018). **Active.**

Managing meal excursions in blood glucose data (2019). **Active.**

Chitnis, T. et al. Quantifying neurologic disease using biosensor measurements in-clinic and in free-living settings in multiple sclerosis. npj Digit. Medicine 2, 1-8 (2019).

C. Liao, O. Shay, E. Gomes and N. Bikhchandani, "Noninvasive Continuous Blood Pressure Measurement with Wearable Millimeter Wave Device," 2021 IEEE 17th International Conference on Wearable and Implantable Body Sensor Networks (BSN), Athens, Greece, 2021, pp. 1-5, doi: 10.1109/BSN51625.2021.9507020.