Nirzaree Vadgama

nirzaree.svnit@gmail.com │ github.com/Nirzaree │ nirzaree.wordpress.com

Data Scientist with 9+ years of experience in building data driven and machine learning algorithms for applications in electric mobility, wearable technology, and remote sensing. Proficient in Python and R, and in developing appropriate solutions to inter-disciplinary problems as a strong team player in a highly dynamic environment. Passionate for the environment and working towards a sustainable future.

Education

Pi School, Rome, Italy — March 2022 - May 2022
Fellow, School of Artificial Intelligence

Technical University of Kaiserslautern, Germany — Oct 2012 - Dec 2014
Master of Science (Embedded Systems), Electrical & Computer Engineering — GPA 1.5/1.0
(German Grading System: 1.0 = highest, 5.0 = lowest)

National Institute of Technology, Surat, India — July 2007 - May 2011
Bachelor of Technology, Electronics & Communication Engineering — GPA 7.91/10.00

Patents

System and method of contactless braking detection for a vehicle
Nirzaree Vadgama and Rajashekhar Ankali, India patent no. 300034, Grant Date: August 17, 2018. *(link)*

Publications

Flexy: Shape-Customizable, Single-Layer, Inkjet Printable Patterns for 1D and 2D Flex Sensing
Nirzaree Vadgama and Jürgen Steimle. ACM TEI 2017 *(link)*

Skills

General: Algorithms, Machine Learning, Deep Learning, Data visualization, Statistical Analysis, Data cleansing
Languages: Python (Pytorch, Tensorflow, scikit-learn, pandas, numpy), R Programming, R Shiny, SQL
Platforms: AWS, GCP

Experience

Senior Scientist II, CropIn Technologies, Bangalore, India — Sep 2022 - Present
Development and deployment of machine learning and deep learning algorithms using remote sensing data for crop type identification.

Senior Data Analyst and Algorithms Engineer, Skylo Technologies, Bangalore, India — Sep 2021 - Dec 2021
Architected algorithms for multimodal sensor data (GNSS, Inertial sensors) on Skylo's hub, a device that enables connectivity through Narrow Band-IoT protocol over geostationary satellites.

Senior Data Scientist, Ather Energy, Bangalore, India — August 2017 - Oct 2020
Developed and deployed algorithms for dashboard navigation and battery's State of Health(SoH) Estimation of Ather 450, India's first smart, connected, high-performance electric scooter.

Research & Development Engineer, Lumos Design Technologies, Bangalore, India — July 2015 - June 2017
Designed novel sensing paradigms and developed and deployed algorithms using multimodal sensor data for wearable tech products for bicyclists.

Master Thesis Student, Saarland University, Saarbrücken, Germany — April 2014 - Dec 2014
Designed and implemented inkjet printable sensors for 1D & 2D deformation sensing.

Research Assistant, Embedded Intelligence Group, DFKI, Kaiserslautern, Germany — Oct 2013 - April 2014
Developed PCB for sensitive wearable capacitive sensors for activity recognition.

Bachelor Thesis Student, National Institute of Technology, Surat, India — July 2010 - April 2011
Designed and developed a gaming interface with neural (EEG) feedback for tailored learning of mathematics and language for special children.

Research Intern, Indian Institute of Science, Bangalore, India — May 2010 - Jul 2010
Implemented time synchronization algorithm in multi-hop wireless sensor networks.

Open Source Projects

Sustainable Eateries   June 2020 - present
Designed and built a webapp with the goal of raising awareness about the waste generated by eateries around the globe, through crowd- sourced data collection and map visualization. The webapp has been built in R Shiny, is open-source and is live at sustainableeateries.com

Urban Natural Farms   Jan 2022 - present
Designed and built a platform to enable natural farming in vacant sites in urban areas with the intent of producing organic food, mitigating impacts of climate change and for community building. The webapp has been built in R Shiny, is open-source and is live at urbannaturalfarms.com

Online Courses

Climate Change AI Summer School   June 2024 - Aug 2024
Applied Machine Learning in Python - Coursera   Jan 2021

Scholarships

Deutschland Stipendium   Oct 2013 - September 2014
J.N. Tata Endowment for Higher Education of Indians   2012

Talks, volunteering, outreach

Abstract + Oral Talk, Managing Sustainable Transitions in Agriculture: Newer Directions for Research and Civic Action   16-18 November 2023
Spoke about a framework to enable collaborative action towards sustainable urban food systems.

Panelist, Sustainable Food Systems in Urban Spaces, IISER Pune   November 2022
Spoke about the role of technology platforms in enabling transition towards sustainable urban food systems.

Volunteer, NeurIPS 2021   Dec 2021
Contributed to organizing of NeurIPS 2021 as a volunteer.

Student Volunteer, ACM TEI 2017   March 2017
Contributed to organizing of ACM TEI 2017 at Yokohama as a volunteer.

Other

Languages English (fluent), Gujarati (native), Hindi (fluent), German (basic)