

Radha Parikh

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EDUCATION

CARNEGIE MELLON UNIVERSITY, HEINZ COLLEGE

Master of Information Systems Management (Dean's List Spring 2025)

Pittsburgh, PA

Aug. 2024 - Aug. 2025

Intro to Deep Learning (PhD), AI Venture Studio, Operationalizing AI, Distributed Systems, OOP in Java, Agile Methods

MANIPAL INSTITUTE OF TECHNOLOGY

Bachelor of Technology in Aeronautical Engineering, Minor in Data Science

Manipal, India

Aug. 2017 - Aug. 2021

EXPERIENCE

GoodFutures (Future-of-work venture studio)

Pittsburgh, PA

AI Engineer

Sept. 2025 - Present

- Contributing to development of MarketOS research and validation pipelines using **TypeScript and Python**, leveraging **LangChain and LangGraph** to orchestrate agentic workflows for feasibility analysis of early-stage venture ideas
- Architected flexible **data models to support AI-driven matching and evaluation algorithms**, enabling future evolution of venture validation workflows without major schema refactoring
- Translated abstract venture ideas into **prototype AI tools and simulations**, aligning technical work with early-stage venture experimentation and decision-making

Heinz College of Information Systems and Public Policy - Carnegie Mellon University

Pittsburgh, PA

Agentic AI Research Assistant

Apr. 2025 - Aug. 2025

- Built **multi-agent Retrieval-Augmented Generation frameworks** using Python, Autogen, and crewAI; implemented semantic search over massive policy datasets to provide LLMs with real-time context for complex reasoning loops
- Translated policy research questions (e.g., **UBI, robot tax**) into agent-based simulations and evaluation frameworks, enabling systematic analysis of human-AI collaboration and policy outcomes
- Delivered **reusable research tooling** for ambiguous policy environments, including **scenario generation, agent behavior logging**, and outcome metrics, enabling repeatable, controlled evaluation of human-AI decision-making and policy tradeoffs

PLUS tutoring - Carnegie Mellon University

Pittsburgh, PA

Math Tutor

Sep. 2024 - Feb. 2025

- Delivered personalized middle-school math instruction through an **AI-assisted tutoring platform**, dynamically adapting lessons to student performance and engagement
- Collaborated** with HCII researchers to provide actionable insights and feedback for platform improvement, contributing to enhanced AI-driven teaching strategies

Fractal Analytics

Bengaluru, India

Data Engineer

Aug. 2021 - Jun. 2024

Transportation Analytics Platform for Fortune 50 CPG Company with 500+ users

- Redesigned** data ingestion from full refresh to **incremental CDC**, delivering **16 times** faster updates and **63% reduction** in cloud costs through pipeline re-architecture.
- Built **real-time shipment visibility systems** supporting **50,000+ weekly loads** across **15+ retailers**, enabling sub-5-second operational insights.
- Integrated ERP, logistics, and real-time location data to power daily risk scoring for **15,000+ shipments**, improving delivery reliability.
- Modernized batch and streaming workflows to handle **100+ GB/day**, cutting processing time by ~50% while improving scalability of the enterprise software.
- Established production CI/CD and reliability practices, reducing incidents by **75%** and mentoring junior engineers.

Healthcare Finance Forecasting Platform for a Dutch Multinational Company

- Built automated financial data pipelines supporting **50+ entity-currency combinations** with zero data loss in production.
- Introduced validation and anomaly detection checks that caught **~40% of data quality issues pre-ingestion**, reducing downstream errors.

Marketing Mix Modeling Platform for Fortune 100 Beverage Company

- Built **PyMMM statistical library** with **95%+ test coverage** using **pytest**, fixtures, and automated test data generation; deployed **CI/CD pipeline** with **Azure DevOps, Docker**, and automated code quality tools (**Black, PyLint, pre-commit hooks**).
- Engineered **data validation pipelines** for **multi-dimensional marketing datasets**, supporting **\$2M+ ad spend optimization** and increasing **deployment reliability**, enabling faster campaign analysis and ROI measurement.

Homework App (Early stage edtech startup)

Bengaluru, India

Product Management Intern

Mar. 2021 - Jun. 2021

- Designed comprehensive user research data pipeline conducting **50+ structured interviews**, building automated analysis workflows in Mixpanel to track user behavior patterns and identify conversion bottlenecks across key funnels
- **Increased app downloads by 50%** through data-driven feature development, implementing **A/B testing frameworks** and cohort analysis to validate UX improvements that improved **7-day retention rates by 35%**
- Established end-to-end QA **data validation pipelines** for weekly releases, creating automated dashboards that reduced **bug detection time by 40%** and improved release quality

PROJECTS

Cuddle Code [Demo]

Dec. 2024 - Apr. 2025

- Led ideation, mission, vision, market research, user interviews, and prototype development with AI collaboration to validate product-market fit as a founder
- Explored partnership opportunities with hiring platforms, bootcamps, and recruiters to pilot AI-augmented assessment experiences
- Designed and developed the official website to communicate the mission and onboard early partners
- Developed frameworks for assessing human-AI teaming skills to better identify candidates fit for AI-driven workplaces

Real-Time Air Quality Prediction System [github]

Feb. 2025 - Apr. 2025

- Built an end-to-end ML system for real-time sensor ingestion and prediction at **1,000+ events/second**.
- Implemented reproducible training, evaluation, and deployment workflows to support continuous iteration.

Reinforcement Learning NAS for DeepFake Voice Detection [github]

Feb. 2025 - Apr. 2025

- Built hybrid NAS system using PyTorch, torchaudio, DARTS, and PPO to search architectures for synthetic speech detection
- Implemented PPO controllers for in-loop model evaluation, improving stability and cutting search time $\sim 35\%$
- Produced models surpassing baseline F1 scores with optimized mel spectrogram preprocessing and GPU acceleration

Intelligent Scheduling & Estimation for Suffolk Construction

Jun. 2025 - Aug. 2025

- Developed data processing pipeline automating schedule generation by mapping 1,000+ cost estimate line items to activities
- Built similarity scoring system with weighted ensemble approach, integrated with Label Studio for human-in-the-loop validation

SKILLS

Data Engineering: PySpark, Apache Kafka, Azure Databricks, ETL/ELT

Cloud & Databases: Azure (Data Lake, Blob Storage, Function Apps, DevOps), GCP, NoSQL, PostgreSQL, MongoDB, Redis

Machine Learning/AI: PyTorch, TensorFlow, LLMs, Transformers, FAISS, LangGraph, LangChain

DevOps & Automation: Docker, Kubernetes, CI/CD (Jenkins, GitHub Actions), Git, Power BI, Tableau

Programming: Python, SQL, Java, JavaScript (JS), React, Node.js, TypeScript

EXTRACURRICULARS

President, Astronomy Club (2020): Led skywatch events and workshops; founded a [Spotify podcast](#) for youth outreach, building a self-sustaining program still active

Wind Energy Research (2019): [Studied wind turbine aerodynamics](#); presented at WESC 2019 (University College Cork, Ireland); secured funding to launch the institute's first Renewable Energy Lab

Community Teaching (2018): Taught spoken English to 10th grade students at [VSK Open School](#) in rural Jamnagar contributing to a 100% board exam pass rate

Team Leadership, Fractal Analytics (2023): Led a team of 50+ working professionals to participate in in-house sports leagues and analytics competitions at Fractal; placed 2nd overall across multiple events.

Course Content Contributor (2022): Developed Jupyter notebooks and hands-on tutorials for the [Fractal Data Science](#) Professional Certificate, in collaboration with Analytics Vidhya.

- **Architected multi-agent Retrieval-Augmented Generation frameworks** using Python, Autogen, and crewAI; implemented semantic search over massive policy datasets to provide LLMs with real-time context for complex reasoning loops
- Translated policy research questions (e.g., **UBI, robot tax**) into agent-based simulations and evaluation frameworks, enabling systematic analysis of human-AI collaboration and policy outcomes
- Delivered **reusable research tooling** for ambiguous policy environments, including **scenario generation, agent behavior logging**, and outcome metrics, enabling repeatable, controlled evaluation of human-AI decision-making and policy tradeoffs