Aarohi Kapadia

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EDUCATION

Carnegie Mellon University (CMU), Pittsburgh, PA **May 2024**

Master of Science: Engineering & Technology Innovation Management
Master of Science: Biomedical Engineering
Relevant Coursework: Machine Learning, Data Science, Product Management, Financial Analysis for Managers, Agile Methods, Business Marketing & Strategy, Quantitative Entrepreneurship
Cumulative GPA: 3.84/4.00

Ganpat University, U.V. Patel College of Engineering, Gujarat, India **May 2022**

Bachelor of Technology: Biomedical Engineering
First Class with Distinction, Cumulative GPA: 9.82/10.00

EXPERIENCE

Project Fellow, Honda Research Institute & Corporate Startup Lab at CMU **Jan 2024 – Present**

- Utilizing **machine learning** to **categorize users** into distinct clusters **based on their movement patterns**.
- Employing a **large language model** (LLM) **to interpret and describe movement patterns in user data**. **Evaluating the effectiveness of the LLM** in profiling user behaviors.
- **Exploring potential applications of movement pattern analysis** to cater to the unique needs and behaviors of different user groups.

Business Development & Licensing Intern, Centre for Technology Transfer & Enterprise Creation, CMU **May 2023 – Present**

- Analyzed **50+ diverse technology portfolios**, assessing technical components and identifying **market trends**, **customer needs**, & **use-cases** for product development.
- Conducted **competitive analysis**, benchmarking technologies against industry rivals to identify strengths, weaknesses, & strategic intellectual property protection opportunities by **tracking patent trends** and corporate assignees in the United States.
- **Evaluated technology commercial viability**, pinpointing licensing opportunities & revenue streams. Delivered **strategic recommendations** for technology development, market penetration, & intellectual property protection, **shaping organizational decisions**.

Research Engineer, Maritime Research Center, India **Oct 2020 – Feb 2022**

- **Designed an automated health hazard analysis tool** for divers, in the Indian Ocean Region, **implemented** as a **web application using JavaScript & Python**, to aid safe dive site selection and underwater acoustic protective equipment decisions. Modelled ambient noise levels in the region using QGIS integrated into the tool using Leaflet. **Research** paper **presented & published** at OCEANS 2022, India.

PROJECTS

Generative AI Implementation & Impact Analysis, Capstone Project, PPG Industries, Inc. **Aug 2023 – Dec 2023**

- Researched, **formulated**, & **proposed** Generative Artificial Intelligence **implementation strategies for diverse job functions** within PPG, delivering insights into potential efficiency gains, **21.9% reduction in labor costs**, and growth opportunities.
- Generated **change management strategies** to **address corporate culture shifts** and fostering acceptance of advanced artificial intelligence solutions in PPG.

New Product Development for Publicly Traded Company, Carnegie Mellon University **Aug 2023 – Oct 2023**

- Strategic product introduction within existing product line of a publicly traded company. Developed **product & technology roadmaps** aligned with company objectives to build a **Minimum Viable Product**.
- Created a user-centric design using **wireframing & prototyping** tools to visually **communicate product concepts** and designs, ensuring alignment with user expectations and **iterative feedback**.
- Crafted a **data-driven business strategy**, detailing revenue projections, expense analysis, & profit forecasts. Composed a detailed **customer lifecycle plan**, mapping user journeys & implementing targeted strategies to enhance customer satisfaction and **drive adoption**.

SKILLS

Technical Languages: Python, Pandas, Numpy, SciKit Learn, Altair, Streamlit Git, SQL, R, MATLAB/GNU Octave, G dataflow, C/C++, Perl

Software/Tools: Figma, Tableau, Microsoft Excel, Jira, Balsamiq, Simulink, NI Multisim, Keil uVision, Proteus, AutoCAD, SolidWorks, Materialise Mimics Innovation Suite, LabVIEW, Fusion 360, 3D Slicer

PUBLICATIONS

- **Kapadia, A**., Prabhuraman, S. and Das, A. (2020) *Health Hazard Analysis Tool for Safe Diving Practices based on the Acoustic Ecology of the Indian Ocean Region***. Presented at OCEANS 2022**, Chennai, India.
  DOI: https://doi.org/10.1109/OCEANSChennai45887.2022.9775220