

Aarohi Kapadia

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EDUCATION

Carnegie Mellon University (CMU), Pittsburgh, PA

May 2024

Master of Science: Biomedical Engineering

Master of Science: Engineering & Technology Innovation Management

Relevant Coursework: Introduction to Machine Learning, Interactive Data Science, Product Management, Financial Analysis for Managers, Business Marketing & Strategy, Strategy & Management of Technical Innovation, Quantitative Entrepreneurship

Cumulative GPA: 3.75/4.00

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

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

- Analyzed **30+ 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.
- Utilized **A/B testing** to **evaluate technology commercial viability**, pinpointing licensing opportunities & revenue streams. Delivered **strategic recommendations** for technology development, market penetration, & intellectual property protection, **shaping organizational decisions**.

Graduate Research Assistant, Computational Engineering & Robotics Lab, CMU

Aug 2022 – Aug 2023

- Developed a comprehensive **product roadmap** for devised foot insole & performed a thorough **comparative analysis** against competing products, enabling a soft **launch of created insole product** within local medical practices.
- Collaborated with a team of 4 to design & develop a functionally graded lattice insole using additive manufacturing for mitigating localized plantar pressure for diabetic foot ulcers.
- Optimized silicone-based custom fit mask design for ALS patients through skin elasticity & thickness testing to prevent leakage and enhance user comfort.

Research Engineer, Maritime Research Center, India

Oct 2020 – Feb 2022

- Designed and implemented an automated health hazard analysis tool** for divers, utilizing Indian Ocean Region acoustic ecology to generate health hazard reports & noise maps to monitor underwater acoustic levels, aiding in safe dive site selection and acoustic protective equipment decisions.
- Led diverse research, including **surveys, data analysis, & a thorough hyperbaric medicine literature review** in collaboration with medical experts.

PROJECTS

Generative AI Implementation & Impact Analysis, Capstone Project, PPG Industries, Inc.

Aug 2023 – Present

- Researching, **formulating, & proposing** Generative Artificial Intelligence **implementation strategies in diverse job functions** within PPG, delivering insights into potential efficiency gains, cost savings, and growth opportunities.
- Generating **change management strategies** to facilitate adoption of cutting-edge computer science technologies within PPG, **addressing corporate culture shifts** and fostering acceptance of advanced artificial intelligence solutions.

New Product Development for Publicly Traded Company, Carnegie Mellon University

Aug 2023 – Present

- 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, Perl for Bioinformatics, C/C++, Clinical/Diagnostic coding

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.
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