Shreyan Mayukh Mitra

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EDUCATION

■ **University of Washington | Seattle, WA** **Expected Graduation: 2025**
- BS Computer Science (Senior Standing) with Minor in Entrepreneurship, GPA: 3.84 and Dean's List
- **Related Coursework:** *Fundamentals of Computer Programming II, Data Structures and Parallelism*

■ **Mission College | Santa Clara, CA** **Graduated: 2023**
- AA Natural Science and Math, AS Computer information Systems, GPA: 4.0
- **Related Coursework:** *Data Structures, Introduction to C Programming, Differential Equations, Linux Essentials, Introduction to C++, Introduction to Python.*

■ **Coursera | Online** **Graduated: 2023**
- Machine Learning Specialization
- **Related Coursework:** *Supervised Machine Learning: Regression and Classification, Advanced Learning Algorithms, Unsupervised Learning: Recommenders and Reinforcement Learning*

TECHNICAL SKILLS

LLM, Explainability, Xcode/Swift, Java, C/C++, Python, OOP, Matlab, Go, React, Linux/Win, Github/Collab, LaTeX

EXPERIENCES

■**Project Manager, AIEA Lab | Univ of California, Santa Cruz, CA** **JUNE 2022 - Present**
- Lead research projects on (a) explanatory artificial intelligence systems (XAI) and (b) hallucination-detection in Large Language Models (LLMs)
- Developed the XAISuite library that allows users of all ages and coding experience to utilize explainable ML (84k downloads): https://11301858.github.io/xaisuiteweb
- Created a pre-generation hallucination detection algorithm and evaluated 16 state-of-the-art LLMs to identify security vulnerabilities [paper pending]
- Created an algorithm to calculate distance between feature importance vectors with ranked components:
  - [2304.08499] The XAISuite framework and the implications of explanatory system dissonance,
  - [2311.1081] A novel post-hoc explanation comparison metric and applications *(published at ICPRAI 2024)*
- Technologies: LLM, Explainability, Python, Blockly, Node.js, Golang, Git version control, Sphinx, Tensorflow, Keras, SHAP, LIME, Transformers

■ **ML Researcher, Dr. Ranjay Krishna's Lab | University of Washington, Seattle**

■ **Researcher, COSMOS Program | Univ of CA, Irvine** **JULY 2021**
- Modeled metastasis of malignant cancer cells using the clonal evolution (CE) model on MATLAB
- Analyzed effects of treatment targeted towards cancer stem cells (CSCs) versus more generalized treatment

■ **Developer Advocate for Microsoft Azure, BitHeroes Program | Univ of CA, Davis** **JUNE 2020**
- Created a distributed, serverless application for call center data processing using text analysis and blob storage

PERSONAL PROJECTS

■ **GoThere** **AUGUST 2023 - Present**
- Created an iOS app using Swift and Xcode that utilizes image classification and location tracking to identify where a user is and point out prominent geographic features in pictures the user takes.
- Integrated with rideshare and rental services to allow the user to build an itinerary

■ **Choitee** (https://greenmanwalking.freehostia.com/choitee/) **JUNE 2021**
- Created web app and Android app using Javascript and PHP that provides mental health guidance to teenagers, helps patients communicate with trusted people, and connects them with medical professionals

LEADERSHIP/COMMUNITY

■President, Computing for Environmental and Social Advocacy■ TEDx Speaker, University of North Carolina ■ Member, Santa Clara Unified School District Task Force for Environmental Awareness and Sustainability Initiatives ■ Santa Clara Unified Council of PTAs Advocacy Chair■ Volunteer Tutor for Refugee Children at Light and Salt Academy■ Syndicated Environmental Columnist on Medium

HONORS AND AWARDS

National Merit Scholar, Presidential Scholar Semifinalist, 2x President's Volunteer Service Gold Medalist