

## WORK EXPERIENCE

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### NYU Steinhardt, Data Scientist

July 2023 – Jan 2024, New York, NY

- Leveraged bayesian regression techniques to identify relevant datasets for causal inference studies on web based analysis tools
- Researched various aspects of human computer interaction, particularly software usability studies, for designing relevant experiments

### Amazon, Software Engineer

Feb 2023 - July 2023, New York, NY

- Built authentication and authorization service tenants using DynamoDB for seamless interfacing between document editing and storing APIs
- Added robust testing frameworks for alarming on faults and failures and created tracking dashboards for the same that **optimized on-call reviews by 40%, leading to almost 1.5 times faster customer ticket resolution**

### Amazon, Software Engineer Intern

June 2022 - Aug 2022, Bellevue, WA

- Developed a canary testing pipeline for control plane APIs that made service health monitoring more efficient and improved service quality and reliability for end users.

### Vimaan Robotics, Machine Learning Engineer

Jan 2020 – Dec 2020, Bengaluru, India

- Developed deep neural net based models for intricate tasks such as activity recognition, object detection, and segmentation.
- Contributed to **growing clients by 60%** via skilled prototyping of intelligent warehouse management solutions using low and high dimensional data

### Nomoko AG, Machine Learning Engineer

Jan 2019 – Jan 2020, Zurich, Switzerland

- Comprehensive exploration and evaluation of semantic and instance segmentation techniques, such as U-Nets and Mask R-CNN for densely detailed aerial imagery of urban landscapes.
- Engineered and deployed a semi-automatic annotation tool for the precise collection of pixel-level annotations, leveraging Deep Extreme Cut to drastically reduce user involvement and accelerate model development and consequent demos, thereby **increasing customer acquisition rate by 55%**

## PROJECTS

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**Large Language Models for SQL Generation** Developing LLM powered AI agents that can generate SQL queries from natural language questions and aid users by answering complex questions with the help of connected databases

**How Much Do Large Language Models Naturally Understand a Clinical Setting?** Evaluated performance of LLMs across different medical domains and their ability to answer clinical questions with complex answers.

**Red Teaming Language Models with Language Models** Developed a test-case generation pipeline that is optimized towards eliciting offensive responses from various language models and identified various failure modes of commonly used LLMs.

**Nutritional labels for Automated Decision Systems** Audited a patient survival prediction system to develop an understanding of features that are instrumental in making such a high-stakes prediction. Examined the interpretability of feature importances learnt by the model, as well as the fairness and bias of its predictions.

**OOD Detection on Natural Adversarial Examples** Evaluated state-of-the-art OOD-detection models on the newly released Natural Adversarial Examples dataset. Additionally, the project goal also included finding the relationship between dataset characteristics, OOD definition(s) and the OOD-detector's performance.

**Causal Inference for measuring DEI Support** Used Bayesian additive regression trees and propensity score based approaches for estimating the effect of people's beliefs on poverty on their opinion of diversity and inclusion policies.

**Causal Effect Estimation using LODE** Applied [LODE](#) for causal effect estimation in the case of functional confounders like Sepsis. Estimated the effect of various treatment(s) on patients with Sepsis of varying intensities. Evaluated various survival analysis models on the MIMIC dataset.

## EDUCATION

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### Courant Institute of Mathematical Sciences, NYU, MSc, Computer Science

Dec 2022

- Machine Learning, Causal Inference, Responsible Data Science, Natural Language Understanding, Deep Learning, Deep Reinforcement Learning, Computer Vision and more.
- Course Assistant: Machine Learning, Web Design and Computer Principles

### Manipal Institute of Technology, BTech, Computer Engineering (Minor in Soft Computing)

May 2019

- Data Mining and Predictive Analytics, Pattern Recognition, Neural Networks and Fuzzy Logic, Human Computer Interaction and more.

## SKILLS

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Programming: Python, R, SQL, C++, C, HTML, CSS, NodeJS, JavaScript, TypeScript, Java

Deep Learning Frameworks: PyTorch, Tensorflow, Keras, Jax

Systems, Softwares and Tools: Tableau, Power BI, AWS, GCP, Azure