

EDUCATION

Cornell University MS in Computer Science Minor in Cognitive Science Computational Sustainability, Advanced Language Technologies, Advanced Programming Languages	<i>Ithaca, NY</i>	Aug 2022 – May 2024 GPA: 3.91 / 4
Indian Institute of Technology Bombay B.Tech in Computer Science & Engineering (Honors) Minor in Artificial Intelligence Deep Learning for NLP, Advanced Machine Learning, Analysis of Concurrent Programs	<i>Mumbai, India</i>	Aug 2017 – May 2021 GPA: 9.68 / 10

SOFTWARE SKILLS

Systems & Programming | python, C/C++, bash, Rust, Haskell, Java, Javascript, SQL, AVX, Git, Perforce, Docker, KVM
Machine Learning | PyTorch, TensorFlow, TensorRT & onnxruntime

WORK EXPERIENCE

ML Research Engineer, Matic Robots • Part of the Neural Networks team building robust, secure and autonomous perception and understanding • Building, training and evaluating transformer-based 3D reconstruction networks that run real-time on edge devices	<i>Mountain View, CA</i>	June 2024 – present
Software Engineer, Samsung Electronics • Developed high-performance 5G-NR virtual L1 layer as part of Physical Uplink Shared Channel team • Utilized Intel®Intrinsics (AVX-512) for efficient parallel processing of data, focusing on cache bottleneck optimization • Reduced bottlenecks in uplink signal processing pipeline to achieve upto 20% speedup	<i>Suwon, South Korea</i>	Sep 2021 – Aug 2022
Network Engineer Intern, Samsung Electronics • Built an automated network load testing framework to evaluate performance of in-production load balancing services	<i>remote</i>	June 2020 – July 2020
Summer Research Intern, TU Braunschweig • Designed and built WeLineation , a full-stack app using Expectation Maximization for medical image segmentation	<i>Braunschweig, Germany</i>	May 2019 – July 2019

RESEARCH EXPERIENCE

Master's Thesis - Prof. Sanjiban Choudhury - Built a learning system using Vision-Language transformers to allow the transfer of human skills to household robots - Collaborated on a speech-interactive task planner for human-robot collaborative cooking, and a web-based evaluator	<i>Cornell University</i>	Feb 2023 – Apr 2024
Undergraduate Research - Prof. Preethi Jyothi Improving code-switched Automatic Speech Recognition (ASR) using Transformers - Built a new bilingual speech recognition model conditioned on language using CUDA accelerated dynamic programming	<i>IIT Bombay & Microsoft</i>	Aug 2020 – June 2021
Improving Low Resource Code-switched ASR using Augmented Code-switched TTS - Used end-to-end ASR models trained on Hindi and English monolingual corpi and code-switched synthetic data to improve performance in low-resource settings		Dec 2019 – June 2020

PUBLICATIONS

- **Demo2Code**: From Summarizing Demonstrations to Synthesizing Code via Extended Chain-of-Thought [*NeurIPS 2023*]
- Improving **low resource code-switched ASR** using augmented code-switched TTS [*INTERSPEECH 2020*]
- **WeLineation**: crowdsourcing delineations for reliable ground truth estimation [*SPIE Medical Imaging 2020*]

TEACHING ASSISTANTSHIPS

Cornell University Intro. to Machine Learning <i>Spring 2024</i> Intro. to Analysis of Algorithm <i>Summer 2023</i>	Computer System Organization & Programming <i>Fall 2022, 2023</i> Computational Sustainability <i>Spring 2023</i>
IIT Bombay Software Systems Lab <i>Fall 2019, 2020</i>	Calculus <i>Fall 2018</i>

KEY PROJECTS

Psychological analysis of ChatGPT Research course exploring decision making of LLMs in risky and ethically ambiguous situations	<i>Prof. Valerie Reyna</i>	Cornell	Fall 2023
Modeling misinformation in organizations Formalize the effect of corruption in hierarchical organizations using information networks	<i>Prof. Jon Kleinberg</i>	Cornell	Spring 2023
Few-shot action recognition on egocentric data Building a two-head action recognition system for EPIC-Kitchens tackling long-tail labels	<i>Prof. Kilian Weinberger</i>	Cornell	Fall 2022
Morphological Inflection through Deep Learning	<i>Prof. Pushpak Bhattacharyya</i>	IITB	2021
Maze Solving with Evolutionary RL	<i>Prof. S. Kalyanakrishnan</i>	IITB	2020