

EDUCATION

Cornell University	<i>Ithaca, NY</i>	Aug 2022 – May 2024
<ul style="list-style-type: none">• Master of Science in Computer Science (Thesis Track) GPA: 4.0 / 4.0, Minor in Cognitive Science• Graduate courses: Computational Sustainability, Advanced Topics in ML, Advanced Programming Languages		
Indian Institute of Technology Bombay	<i>Mumbai, India</i>	Aug 2017 – May 2021
<ul style="list-style-type: none">• Bachelor of Technology in Computer Science & Engineering with Honors, Minor in Artificial Intelligence & Data Science• GPA: 9.68 / 10, Honors GPA: 10 / 10, Minor GPA: 9.4 / 10		

WORK EXPERIENCE

Software Engineer, Samsung Electronics	<i>Suwon, South Korea</i>	Sep 2021 – Aug 2022
<ul style="list-style-type: none">• Key role in developing high-performance, low-latency physical layer for 5G wireless communication as a member of Physical Uplink Shared Channel team, focusing on core-cycle and cache bottleneck optimization.• Utilized Intel®Intrinsics (AVX-512) for efficient parallel processing of data• Reduced bottlenecks in uplink signal processing pipeline to achieve upto 20% speedup		
Network Engineer Intern, Samsung Electronics	<i>remote</i>	Jun 2020 – July 2020
<ul style="list-style-type: none">• Built an automated network load testing framework to evaluate performance of in-production load balancing services		
Summer Research Intern, TU Braunschweig	<i>Braunschweig, Germany</i>	May 2019 – July 2019
<ul style="list-style-type: none">• Designed and built WeLineation, a full-stack app using Expectation Maximization for medical image segmentation.		

RESEARCH EXPERIENCE

Master's Research - Prof. Sanjiban Choudhury	<i>Cornell University</i>	Feb 2023 – (ongoing)
Leveraging vision-language models and GPT-4 to allow transfer for human skills to household robots.		
Undergraduate Research - Prof. Preethi Jyothi	<i>IIT Bombay & Microsoft</i>	
Improving code-switched Automatic Speech Recognition using Transformers¹		Aug 2020 – Jun 2021
Built a new bilingual speech recognition model conditioned on language using CUDA accelerated dynamic programming		
Improving Low Resource Code-switched ASR using Augmented Code-switched TTS¹		Dec 2019 – Jun 2020
Used E2E Automatic Speech Recognition models trained on Hindi and English monolingual data and code-switched Text to Speech (TTS) to improve performance in low-resource settings		
R&D Project - Prof. Amitabha Sanyal	<i>IIT Bombay</i>	Fall 2020
Implemented an automated debugger for GCC plugin designed to detect bugs in C program translation		

TEACHING ASSISTANTSHIPS

CS3410: Computer System Organization & Programming	<i>Cornell University</i>	Fall 2023, Fall 2022
CS4820: Introduction to Analysis of Algorithms	<i>Cornell University</i>	Summer 2023
CS2770: Excursions in Computational Sustainability	<i>Cornell University</i>	Spring 2023
CS251: Software System Lab	<i>IIT Bombay</i>	Fall 2020, Fall 2019
MA105: Calculus	<i>IIT Bombay</i>	Fall 2018

Won TA awards for **Fall 2020** and **Fall 2022**

PUBLICATIONS

- **Demo2Code: From Summarizing Demonstrations to Synthesizing Code via Extended Chain-of-Thought** H. Wang, G. Gonzalez, Y. Sharma, S. Choudhury [*NeurIPS 2023*]
- **Improving low resource code-switched ASR using augmented code-switched TTS** Y. Sharma, B. Abraham, K. Taneja, P. Jyothi [*INTERSPEECH 2020*]
- **WeLineation: crowdsourcing delineations for reliable ground truth estimation** S. Goel², Y. Sharma², M.L. Jauer, T.M. Deserno [*SPIE Medical Imaging 2020*]

PROGRAMMING LANGUAGES AND SOFTWARES

C/C++, python, bash, JavaScript, Haskell, Java, SQL, PyTorch & TensorFlow, AVX, Git, Perforce, Linux, Docker, MATLAB, Dart

KEY PROJECTS

Psychological analysis of ChatGPT in risky decision making ; Prof. Valerie Reyna; Fall 2023	<i>Cornell University</i>
Modeling misinformation in organizations using ; Prof. Jon Kleinberg; Spring 2023	<i>Cornell University</i>
Few-shot action recognition on egocentric data ; Prof. Kilian Weinberger; Fall 2022	<i>Cornell University</i>
Morphological Inflection through Deep Learning 2021 ; Maze Solving with Evolutionary RL 2020	<i>IIT Bombay</i>

¹Work done as part of collaboration between **Microsoft India Development Center** and **Indian Institute of Technology Bombay**

²Equal contribution