

# Sachit Gaudi

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## EDUCATION

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### Master of Science in Computer Science & Engineering

East Lansing, MI

Michigan State University **GPA: 3.83/4**

Jan 2023 - \*

- Graduate Teaching Assistant: [Database Systems](#) (Summer'23), [Intro to C++ programming](#) (Fall'23)
- Relevant Courses: Computer Vision, Graph Theory, Parallel Computing

### B.Tech in Mechanical Engineering

Guwahati, India

Indian Institute of Technology, Guwahati; **GPA: 7.30/10**

July 2014 - May 2018

- Relevant Courses: Linear Algebra, Data Structures and Algorithms, Calculus, Differential Equations.

## TECHNICAL SKILLS

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**Programming:** Python, C++, Java, PyTorch, Huggingface, Shell Scripting.

**Search and Databases:** MySQL, OracleSQL, Solr, MongoDB, Elastic Search, AWS - Elastic Compute Cloud

**Other Tools and Technologies:** Docker, Flask, Django, Git, Jenkins, RabbitMQ

**Cloud:** AWS, Azure, IBM

**Conferences:** CVPR, EMNLP

## RESEARCH EXPERIENCE

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### Graduate Research

East Lansing, MI

Advisor: [Prof. Vishnu Boddeti](#)

Jan 2023 - \*

- Working on algorithmic fairness and privacy, with a focus on training models with [fairness constraints](#) and [unlearning](#) private information.

## WORK EXPERIENCE

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### Software Development Engineer - II

Mumbai, India

Reliance Jio Haptik, Conversational Commerce team

Jan 2020 - Dec 2022

- Led research and implementation efforts in multi-task BERT-based transformer models, significantly improving the accuracy of product labeling, NER, and intent detection for JioMart Search (25M MAUs).
- Engineered a collaborative filtering-based product personalization module for targeted recommendations.

### Software Development Engineer - I

Mumbai, India

Reliance Jio Haptik, Conversational Commerce team

Jan 2020 - Dec 2022

- Designed & implemented Mediator pattern, a solution which integrates messages all sources including Meta.
- Owned developer module, involved migration to async queues. Led effort to implement centralised logging into Elastic Search, minimizing developer debugging time. Contributing to a 98% up-time guarantee.
- Implemented back track algorithm to improve Intent detection and Tf-idf to improve semantic extraction.

### Lead Backend Engineer

Hyderabad, India

SmatSuite

Jan 2019- Jan 2020

- Took responsibilities of architecture and database design for chatbot. Developed Analytics, Reseller, Integrations, and Multilingual modules for SmatBot product.
- Improved recommendations of Media Articles for Clients' social media for SmatSocial product

## PROJECTS

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### Pattern Unrecognition

Michigan State University

Apr 2023

- Developed a [novel solution](#) to address spurious correlation, resulting in a **+8%** increase in generalization accuracy through integrating fairness constraints into MDA.

### Distributed Deep Learning

Michigan State University

Jan - May 2023

- Developed [P-GPT](#) algorithm - a gradient map-reduce parallelization strategy - for training deep learning models across multiple servers. P-GPT establishes optimal parameters for data scheduling, threading, and process parallelism tailored to specific network typologies achieving a parallel efficiency of **95%**.
- Technologies* – C++, NCCL, MPI, OpenMP, Multi-threading, Linux

## Deep Learning based Image Search for e-commerce

*Indian Institute of Technology, Kharagpur*

*Sept – Oct 2019*

- Implemented a Triplet Pair Siamese Network with a base model of VGG16, trained using hinge loss. Achieved a 10% recall while maintaining flexibility for training on search rank data.

## Actionable Business Insights for hotels

*Saint Joseph's University, Philadelphia, PA*

*May - July 2017*

- Worked on attribute Performed Sentiment Analysis using VADER algorithm and assigned sentiment values to the aspects. Measured how reviews along aspects effect occupancy rate in hotels.

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## Foundations of AI/ML

*Indian Institute of Technology, Kharagpur*

Hyderabad, India

*Apr 2019 - Sept 2019*

- Relevant Courses: Linear Algebra, Probability, Statistics, Machine Learning, Information Retrieval, Natural Language Processing, Image Processing.

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## ACHIEVEMENTS & CERTIFICATIONS

2020 - Received Big Hand award from Reliance for exemplary quarterly performance.

2019 - Received Scholarship based on Merit from IIT, Kharagpur. (Top 10%)

2014 - Secured Joint Entrance Examination All India Rank of **2240** among 0.15 million candidates. (Top 1.5%)