

# Ghritachi Mahajani

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## EDUCATION

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|---|---------------------|
| <b>Masters of Science, Computer Science</b> , <i>University of Colorado, Boulder</i>                              | May, 2025           |
| <i>Courses: Design and Analysis of Algorithms, Distributed Systems, Data Center Scale Computing</i>               | GPA <b>4.0</b>      |
| <b>Bachelors of Technology, Computer Science and Engineering</b> , <i>SRM Institute of Science and Technology</i> | May, 2019           |
| Graduated <b>First Class with Distinction</b>   | CGPA <b>9.45/10</b> |

## SKILLS

**Programming Language:** JavaScript, Typescript, Python, C++.

**Frontend** : React, Redux, Tailwind CSS, Material UI, Responsive Web, Canvas API.

**Backend** : Node.js, FastAPI, Django, NextJS, Flask, REST APIs, MongoDB, PostgreSQL.

**Cloud & DevOps** : Google Cloud (GCP), Docker, Kubernetes, Git, CI/CD.

**Machine Learning & AI** : Transformers, LLMs, Deep Learning, Optimization

## WORK EXPERIENCE

|                                      |                       |
|--------------------------------------|-----------------------|
| <b>Student Assistant (Part-Time)</b> | Feb, 2024 – May, 2025 |
| <i>RECUV Lab, CU Boulder</i>         | Boulder, CO           |

- Build and maintained a complex React/Node.js web application for SAFARI autonomous drone research, collaborating with researchers and users for iterative feedback.
- Designed, implemented, and tested 15+ features (map painting using Leaflet.js, state management using Zustand, real-time updates using WebSocket API, and form elements using material UI and Tailwind CSS).

|                                  |                         |
|----------------------------------|-------------------------|
| <b>System Engineer</b>           | July 2019 - August 2023 |
| <i>Tata Consultancy Services</i> | Delhi, India            |

- Developed a high-availability customer loyalty web platform in a global team using achieving 100% client satisfaction.
- Single-handedly delivered an Angular-Ionic Android mobile application end-to-end, owning all phases from requirement gathering to production support.
- Collaborated on integration of CI/CD workflows and code versioning using Git, improving deployment reliability and engineering efficiency; contributed to code reviews.
- Worked closely with clients and product managers to rapidly deliver solutions tailored to user needs.

## PROJECTS

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| <b>AI Integrated Log Analysis Application</b> (University Course Final Project)   <a href="#">Link</a> | 2023 |
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- Deployed a distributed containerized services-based application on Google Cloud Computing that takes log files asynchronously and stores them along with AI-generated analysis of the logs, with authenticated user access.
- Implemented the cloud infrastructure using Elasticsearch for storage, Redis as message queue, Flask for REST, AWS S3 for storing files, Llama 3 Large Language Model for generating AI insight and Kibana for visualization.

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| <b>Distributed Systems Client-Server E-commerce App</b>   <a href="#">Link</a> | 2023 |
|--|------|

- Implemented Client and Server functions for E-commerce seller using REST services in Flask.
- Integrated gRPC for PostgreSQL database calls and Atomic Broadcast protocol for scaling up.

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| <b>Image Captioning System</b> (Undergrad Capstone Project)   <a href="#">Link</a> | 2019 |
|--|------|

- Trained and compared deep learning encoder-decoder models (consisting of LSTMS, word embeddings and pre-trained CNNs) for image caption generation on a dataset of 8000 images, using Tensorflow, Numpy, Keras.
- Achieved 13% improvement on baseline model by optimization techniques like fine-tuning and vocabulary reduction.

## CO-CURRICULARS

|   |      |
|---|------|
| <i>Publications:</i> Yarlagadda et al., An AI-Powered Interactive Interface to Enhance Accessibility of Interview Training for Military Veterans, International Conference on Multimodal Interaction (ICMI). <a href="#">Link</a> | 2024 |
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**IBM Full Stack Software Developer Professional Certificate:** Docker, Kubernetes, cloud, CI/CD etc.