Mansi Agarwal

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Education

Cornell University
BS in Computer Science
May 2023 | Ithaca, NY
College of Engineering
GPA: 3.9 / 4.0

Stanford University
Summer Session (CS)
Computer Science
Aug 2019 | Stanford, CA
A/A+ in CS106AP & CS106B

CS and related courses

Programming in Python
Object Oriented Programming
Data Structures
Discrete Structures
Functional Programming

Big Data, Models
Machine Learning (Python)
Backend Development
Web Development

Ethics of Artificial Intelligence
Linear Algebra (Honors)
Multivariable Calculus

Skills

Programming
Over 5000 lines:
Python
Over 3000 lines:
Java, Ocaml
Familiar:
C++, Go, Julia

Cloud technologies
Elasticsearch
Couchbase (DB)
Fluent-D, Kibana, Grafana
My SQL, Lucene
AngularJs

DevOps
GitHub, Docker, Kubernetes

Experience

Mavenir |Intern
Aug 2020 – Jan 2021 | Virtual (Bengaluru, India)

- Worked on Telco Billing Software
- Aggregated records from multiple services (VoLTE, Data, RCS, SMS) to create customer wise view, trends, and insights
- Created a Telco CDR reconciliation and validation workflow
- Re-factored the core modules (millions of code lines), Improved the run-time by 10%

Mavenir |Digital Enablement Intern
Jun 2020 – Aug 2020 | Virtual (Richardson, USA)

- Worked on Monitoring system for business Messaging Application
- Collected, indexed, and stored system data in Elasticsearch
- Used lucene queries to visualize events, using Grafana
- Created an AngularJS based UI for user interaction

Google CSSI |Student Mentor
Jun 2020 – Sep 2020 | Online

- Taught Data Structures and Algorithm to 20+ students and helped them with their assignments.

Cornell University |Researcher at Science Signal Lab
Jul 2020 – Present | Ithaca, NY

- Created Optimized video compression algorithm that delivers same entropy (video streams) with one-sixth resources
- Created algorithm to assess various streams, probability distributions, choose optimal binarization scheme, validate and report compression outcomes

Projects

App to 'match' buddies for CS course assignments |Flask, SQL, GCP
Oct 2019 – Dec 2019 | Ithaca, NY

- Created an app where students find buddies for course assignments and study groups.
- Introduced a 'Tips' feature which advised students on areas where they are strong and can help class-mates and vis-a-versa.

Model to predict share price for select Oil companies |Python
Oct 2019 – Dec 2019 | Ithaca, NY

- Built an evolving model to predict stock price for selected Oil Companies.
- Correlated various indices (Retail indices, movements in futures prices, etc.) to improve model predictability

Built data compression algorithm to compress data files |C++, OOP
Jun 2019 – Aug 2019 | Stanford, CA

- Reduced run-time and file size by 30%+, using Huffman coding