# Mohit Chhaya

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#### **EDUCATION**

## University of Illinois - Urbana Champaign

2024

Bachelors of Science in Computer Science + Linguistics

Coursework: Compiler Construction (Fall 22), Computer Systems (Fall 22), Programming Languages & Compilers, Data Structures, Discrete Structures, Computational Morphology, Linear Algebra

### EXPERIENCE

#### Amazon

August 2022 - November 2022

Software Development Engineer Intern

• Incoming Software Development Engineering Intern for Fall 2022 on the IMDb team.

#### Addition Technologies Inc.

November 2021 - Present

Software Engineer

- Engineered web scraper on Cloud Run utilizing Selenium and Python to scrape 5000+ advertisements, exposed as an API, used to shortening marketers data wrangling time by ~15%
- Created database utilizing both **Firestore** and GCP Cloud Storage to store **5000+** pieces of advertiser metadata.
- Design and deploy an end-to-end data pipeline utilizing Google's **Natural Language Processing** API's, **OpenAI's GPT-3**, and the Contrasive Language-Image Pre-Training (CLIP) **neural network** to generate question-answer scenarios and chatbots for various companies.
- Decreased latency of Google Cloud Run jobs by 70% and rendered data to a web app built using React.js
- Set up relational MySQL Database consisting of 12+ tables to streamline data pipelines, saving developers ~100 hours

#### Disruption Lab at Gies

January 2022 - May 2022

Software Developer

- Commissioned by Ernst & Young to research and implement options pricing models on IBM quantum computers.
- Implemented highly efficient quantum versions of Binomial Pricing and Monte-Carlo
- Developed quantum finance software using Qiskit and Python. Utilized transpilers to convert from Qiskit quantum circuits to AWS circuits

#### Mercury Signs Inc.

July 2020 - July 2021

Project Manager

- Created a financial dashboard using REST API's, Selenium Web Scraping, Python, and Google Cloud Platform to monitor financial data on 2000+ customers.
- Automated customer pipeline to bring greater visibility to each customer using Google Cloud Functions, Cloud Pub/Sub, Gmail REST API, and Python. Automatically handled 1000+ customer interactions.
- Achieved a ~20% higher customer retention rate and increased customer acquisition by ~30%.

# PROJECTS

# ${\bf Search\ Engine}\ |\ \mathit{C++},\ \mathit{Python},\ \mathit{Flask},\ \mathit{React.js},\ \mathit{PyTest}$

January 2022

- Created a novel Search Engine that utilizes various string matching **algorithms** for efficacy. (Jaccard Index, TFIDF Ranking, Cosine Similarity, Ratcliff Obershelp)
- Developed Flask backend in Python for a web application and RESTful API which was deployed on Heroku.
- Rewrote project in C++ for performance and utilized multithreading for performance boost of ~3s.

### WeatherOrNot | Python, Tensorflow, Django, Bootstrap, SQL

August 2021

- $\bullet \ \ \text{Developed a health assistant that analyzes risks based on climate and various meteorological factors.}$
- Built a fully responsive web application with the **Django** framework and **Bootstrap**.
- Implemented a relational SQL database to store user data. Utilized a mail server to send risk factors via email daily.
- Queries REST API's for local weather data and other factors.

#### NoTestNoProblem | Python, Tensorflow, Django, Keras

July 2020

- Developed an alternative COVID-19 testing platform to address the shortage of tests at the start of the pandemic.
- $\bullet \ \ {\bf Trained} \ \ {\bf a} \ \ {\bf Convolutional} \ \ {\bf Neutral} \ \ {\bf Network} \ \ {\bf utilizing} \ \ {\bf K-Fold} \ \ {\bf Cross-Validation} \ \ {\bf through} \ \ {\bf Tensorflow} \ \ {\bf and} \ \ {\bf Keras}.$
- Created web application using the **Django** framework.
- Won Best Business Potential at Flare Hacks 2020.

## TECHNICAL SKILLS

Languages: Python, C++, Javascript, Haskell, Java, Typescript, HTML/CSS, SQL, SAS, C#

Tools: Git, AWS, GCP, Docker, Heroku, Azure, MongoDB, React, Node.js, Flask, FastAPI, Kubernetes, Tensorflow, Linux

#### CERTIFICATES

SAS Certified Base Programmer for SAS 9 Natural Language Processing Specialization  $SAS \cdot 2020$