# Mohit Chhaya

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#### EDUCATION

## University of Illinois - Urbana Champaign

2023

Bachelors of Science in Computer Science + Linguistics

Coursework: Data Structures, Discrete Structures, Computational Morphology, Linear Algebra

## EXPERIENCE

#### Fidelity Investments

Summer 2022

Full Stack Engineering Intern

• Incoming Full Stack Engineering Intern for Summer 2022.

#### Disruption Lab at Gies

January 2022 - Present

Software Developer

- Collaborated with a team of 7 people, selected and commissioned by Ernst & Young, to research novel methods in Quantum Finance.
- Implemented classical options pricing models such as: Black-Scholes, Bionmial Pricing, and Monte-Carlo on a quantum computer.
- Developed quantum finance software using **Qiskit**.

#### Addition Technologies Inc.

November 2021 - Present

Python Engineer

- Parsed 500+ ads from TikTok's ad library using Selenium and reverse engineered XHR requests to create a dataset for further analysis.
- Created relational database between Firestore and GCP Cloud Storage to store 2000+ pieces of advertiser metadata.
- Leveraged Google API's for Natural Language Processing and Video processing.
- Utilized GPT-2 and the Contrastive Language-Image Pre-Training (CLIP) neural network to generate descriptive captions
  and create question-answer scenarios for advertisers.

## Mercury Signs Inc.

July 2020 - July 2021

Project Manager

- Created a financial dashboard using REST API's, Selenium Web Scraping, Python, and Google Cloud Services 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

## ${\bf Search\ Engine}\ |\ {\it Python,\ Flask,\ React.js,\ TailwindCSS}$

January 2022

- Created a novel Search Engine that utilizes various search **algorithms** for efficacy. (Jaccard Index, TFIDF Ranking, Cosine Similarity)
- Developed Flask backend for a fully responsive web application and RESTful API that serves data in JSON format.
- Leveraged React.js to build frontend alongside TailwindCSS for accessibility.

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

August 2021

- 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.
- Trained a Convolutional Neutral Network utilizing K-Fold Cross-Validation through Tensorflow and Keras.
- Created web application using the **Django** framework.
- Won Best Business Potential at Flare Hacks 2020.

# CERTIFICATES

#### SAS Certified Base Programmer for SAS 9

 $SAS \cdot 2020$ 

Natural Language Processing Specialization

DeepLearning.AI  $\cdot$  2021

TECHNICAL SKILLS

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

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