

# Varun Upadhyay (IEEE Member)

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## EDUCATION

### University of North Carolina at Charlotte

Charlotte, NC

Master of Computer Science (AI/ML, Robotics, Gaming)

Jan. 2023 – August 2024

Bachelor of Computer Science, (Additional Minor in Mathematics)

Aug. 2020 – Dec. 2023

**GPA: 3.71/4.0** - Chancellor's List

## EXPERIENCE

### Full Stack Developer Intern

May 2023 – Aug 2023

*Allstate Insurance*

*Orange, CA*

- Developed and enhanced offer generation **APIs** and **endpoints**, leveraging full stack development skills, to facilitate the seamless creation and delivery of personalized offers for **millions** of Allstate Insurance customers, ensuring an exceptional **user experience**.
- Collaborated closely with **cross-functional** teams to **analyze** requirements, **design** efficient and **scalable** offer generation solutions, and implemented **robust code** using modern technologies, resulting in the successful integration of offer generation APIs and endpoints that significantly **improved** the **efficiency** and **accuracy** of the process.

### Undergraduate Teaching Assistant

Aug. 2022 – Dec. 2022

*University of North Carolina Charlotte*

*Charlotte, NC*

- Aided Instructor in course planing and delivery to **60+ students**
- Boosted student involvement by nearly **40 percent** and facilitated a safe environment for **student learning**

## TECHNICAL SKILLS

**Languages:** Java, Javascript, Python, C/C++, SQL (Postgres), HTML/CSS, Dart

**Coursework:** Data Structures and Algorithms, Applied Machine Learning

**DevOp Tools:** Git, Gitlab, Postman, DataDog, Vim, J-Unit, Jenkins, Artifactory, CMD, Linux, Google Cloud Platform, Agile Methodology

**Libraries:** TensorFlow, OpenCv, MediaPipe, Pandas, NumPy, Matplotlib, Keras, Scikit-Learn

## PROJECTS

### 🔗 Lip Interpreter | *Python, NumPy, TensorFlow, GitLab*

Sept. 2022

- Filtered input image from OpenCV to find Edges, corners and shapes using Canny Edge Detection and voting on image space using Hough transform
- Extracted and assigned image patches, and features to add to classifiers of a visual bag of words to be used during model training
- Trained a CNN model using TensorFlow on prelabeled images from a massive online dataset

### 🔗 Edu-Life | *Python, TypeScript, Node.js, HTML/CSS, SQL, CockroachDB, Git (HackDuke-2nd)*

Oct. 2022

- Managed and established a database using Cockroach Database
- Built Rest API's and endpoint request to read, write, retrieve and update the database
- Implemented Node.js, TypeScript and HTML/CSS to design and host game on localhost

### 🔗 Chare | *Python, SQL, MongoDB, Flutter, Git, Figma*

Oct. 2021

- Designed a backend using REST framework to facilitate API requests and establish local web servers for Front-end.
- Established a harmonious connection between API requests and the SQL database, thereby facilitating the efficient retrieval and alteration of data
- Employed Git to consistently and collaboratively push and merge files to the master branch with team members.

## EXTRACURRICULAR

- Played in University of North Carolina at Charlotte intramural volleyball
- Member of the cricket club which organizes and plays games every week against other teams
- Placed 3rd in a University held pool/billiards tournament organized by the Pool Club