

# VARUN AGARWAL

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## EDUCATION

Georgia Institute of Technology, Atlanta, GA

Aug. 2021 – Dec. 2022 (Expected)

Masters in Computer Science

**Graduate Research Assistant** for augmenting Piazza to better support online Masters students.

Dwarkadas J. Sanghvi College of Engineering, University of Mumbai, India

July 2014 – May 2018

Bachelor of Engineering in Information Technology – CGPA: 9.12/10.00

## EXPERIENCE

Associate, JP Morgan Chase & Co., Mumbai

Jan. 2021 – July 2021

- Developed front-end UI using React-Redux for thousands of advisors trading in Foreign Exchange secondary markets.
- Improved speed by **5 seconds (50%)** by identifying delays & introducing concurrency in sequential processing.

Software Engineer II, JP Morgan Chase & Co., Mumbai

Jan. 2020 – Dec. 2020

- Built Java applications in Spring Boot having micro-service architecture. Implemented concurrency, actuators, caching, load balancers & loggers.
- Reduced infrastructure **costs by 70%** by deploying on a private cloud.
- Reduced the share allocation process time from more than **2 minutes to less than 15 seconds** by introducing multithreading while ensuring transactions and rollback capabilities.
- Implemented Kafka for high-performance processing of trades.
- Subject Matter Expert at the Code for Good Hackathon for 120+ students for two consecutive years (2019 & 2020).

Software Engineer I, JP Morgan Chase & Co., Mumbai

Jul. 2018 – Dec. 2019

- Developed UI using React-Redux for thousands of trade advisors & asset class leaders trading in primary markets.
- Reduced deployment effort by more than 90% by implementing the CI/CD pipeline (Jenkins & Jules) incorporating various scans.
- Followed proper agile practices including sprint planning, daily standup, backlog refinement, retrospective, etc.
- Awarded for developing a React Native solution for NGO 'Annadhan' in the Force for Good initiative over 8 months.

Android Developer Intern, Zaarvii Technologies, Mumbai

Dec. 2016 – Jan. 2017

- Developed an android application for an IIT Bombay based startup for their home automation solutions.

## TECHNICAL SKILLS

- Languages:** Java, Python, JavaScript, SQL, C++
- Technologies & Frameworks:** Spring Boot, React, Redux, Kafka, React-Native, Jupyter notebook

## PUBLICATIONS & PROJECTS

Twitter Analysis for Disaster Management

IEEE Xplore

- Presented & awarded as **Best Paper** of the Session at ICCUBEA Conference 2018 (ISBN: 978-1-5386-5257-2)
- Developed an application for analyzing tweets to help government bodies & NGOs for rescue purposes during disasters.
- Leveraged NLTK for parsing tweets, tokenizing, stemming and Word2Vec for word vectors.
- Implemented Geolocation feature that uses coordinates of tweets to plot dangerous & shelter locations on a map.

Automated Aspect Extraction and Aspect Oriented Sentiment Analysis on Hotel Review Datasets

IEEE Xplore

- Presented research paper at ICCUBEA Conference 2018 (ISBN: 978-1-5386-5257-2)
- Extracted aspects dynamically using Stanford Dependency Parser and evaluated reviews based on those aspects.
- Used Word2Vec, K-means clustering & WordNet similarity for correlated aspects, NLTK for tokenizing, stemming, etc.

Chaakri : E-commerce application for NGO

- Developed an Android application to manage orders & distribution of goods for both B2B & B2C markets.
- Developed admin console using HTML, CSS, JavaScript, and Google charts for inventory management & sales analytics.
- Used Google Distance Matrix & other social media API's for finding the nearest middle-women & recognition of best performers.
- Runner-Up among 120+ students & awarded as the best project solution for the NGO 'SaNiSa'.

Farmer's Market

- Developed an Android application for farmers to sell crops directly to buyers with easy registration by scanning national ID.
- Introduced multilingual functionality to ease the use of the application for less-educated farmers.
- Used Recurrent Neural Network to predict the best suitable crop for farming based on the soil & weather conditions.

## ACHIEVEMENTS AND EXTRACURRICULAR ACTIVITIES

- Events Head, Association for Computing Machinery** – Awarded with Best Student Chapter of all committees, DJSCE. 2015
- Events Head, National Service Scheme** – Volunteered 120+ hours in organizing social events. 2015
- Logistics Head, Computer Society of India** – Awarded Best Active CSI Branch in whole India. 2016
- Runner Up, JP Morgan's Code for Good Hackathon** – Among 120+ students, Mumbai. 2017
- Best Academics Award** – Three consecutive 10/10 pointers (Semesters IV, V, VI). 2017
- AWS DeepRacer** – Member of the only team in JPMC Mumbai to promote Machine Learning & its use cases in finance. 2017