

VARUN AGARWAL

+1 (470) 815 6937 — varun.agarwal@gatech.edu — varunagrw196.github.io — linkedin.com/in/varunagrw196

EDUCATION

Georgia Institute of Technology, Atlanta, GA
Masters in Computer Science (GPA: 4.0/4.0)

Aug. 2021 – Dec. 2022 (Expected)

Dwarkadas J. Sanghvi College of Engineering, University of Mumbai, India
Bachelor of Engineering in Information Technology – CGPA: 9.12/10.00

July 2014 – May 2018

EXPERIENCE

Graduate Research Assistant, Georgia Institute of Technology

August 2021 – (Present)

- **Caught** 22 students cheating by developing secret tools that detect plagiarism in both online and take-home exams.
- **Published** a chrome extension for online discussion forum EDSTEM to provide post suggestions & recommendation dashboards.

Associate, JPMorgan 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%)** in sequential processing of trades by introducing concurrency & identifying delays.

Software Engineer II, JPMorgan Chase & Co., Mumbai

Jan. 2020 – Dec. 2020

- Built multiple applications in Spring Boot with micro-service architecture. Implemented concurrency, actuators, caching, load balancers & loggers.
- Reduced infrastructure **costs by 70%** by deploying on a private cloud.
- Reduced the shares allocation process time from **>2 mins to <15 secs** by introducing multithreading while ensuring transaction rollback capabilities.
- Reduced latency by introducing 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, JPMorgan 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 this *IIT Bombay* based startup that provides home automation solutions.

TECHNICAL SKILLS

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

PUBLICATIONS & PROJECTS

Twitter Analysis for Disaster Management

IEEE Xplore

- 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.
- Awarded as the **Best Paper** of the Session at ICCUBEA Conference 2018 (ISBN: 978-1-5386-5257-2)

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

IEEE Xplore

- 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.
- Presented this research paper at ICCUBEA Conference 2018 (ISBN: 978-1-5386-5257-2)

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 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.
- **Winners** among 120+ students for the NGO 'SaNiSa' at the JP Morgan Code for Good Hackathon.

Farmer's Market

- Developed an Android application to increase profits for farmers by selling crops directly to consumers.
- Introduced multilingual functionality & easy registration by scanning national ID 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
- **Best Academics Award** – Three consecutive 10/10 pointers (Semesters IV, V, VI). 2017