

# RAJAT BHATNAGAR

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## EXPERIENCE

### Software Engineering Intern

#### Apple Inc.

📅 June 2020 - August 2020

📍 Cupertino, CA, USA

- Designed and developed the database and apis for integrating server side OAuth 2 in Apple's internal website. Integrated it with confluence using Scriptrunner and user macros.
- Developed website using React js and Ag-Grid for managing service accounts.

### Software Development Engineer

#### Fastfox - Acquired by Elara Group (Housing, PropTiger & Makaan)

📅 June 2016 - July 2019

📍 Gurgaon, India

- Designed, developed and maintained multiple key projects while working as a fullstack developer for this fast paced real estate startup
- **Fastfox.com** 🌐 - Developed the front end of the main customer facing website from scratch using React js along with 3 team members
- **Broex, Brofirst** - Designed and developed innumerable apis for these apps with focus on scalability and super low latency
- **Whatsapp Bots** - Developed a bot which could perform various tasks on Whatsapp Chats like joining a group, extract messages from a group, extract group members and read all group names
- **Named Entity Recognition** - Using the messages extracted from the above bot, converted the messages to structured information (using CRF algorithm) so that they could be posted as listings on the Broex app
- **Recommendation System** - Improved the recommendation system by adding geospatial and time based features. Implemented this in Solr
- **Infrastructure monitoring** - Integrated Amazon Cloudwatch with the infrastructure. It monitored the infrastructure and raised alarms if any anomaly occurred
- Received Fastfox Excellence Award for best performance

## PROJECTS

- **Toxicity Classification** 🌐 - Used BERT for classifying toxic comments in Reddit. Developed a website where the moderators can delete the toxic comments. Integrated with the several subreddits. Also highlighted the key tokens due to which the decision was made by the classifier. <http://detoxify.machineintheloop.com> 🌐, Youtube Video for Moderators 🌐
- **Sniper** 🌐 - Made a system to prevent Denial of Service attacks by blocking the IP address of the attacker. Technologies used - docker, nginx plus, elastic search, elasticsearch, kibana, filebeats <https://youtu.be/d72DzrDAfFM> 🌐
- A survey of Neural Machine Translation for low-resource languages.
- Paper publication on MapReduce Based Frequent Itemset Mining Algorithm on Stream Data 🌐 in GCCT 2015.
- Paper (unpublished) on A study of behaviour of imbalanced data using SMOTE, Fuzzy Inference System and Random Forest 🌐
- Published Windows Mobile Apps and Windows Desktop Apps - **Integration+**, **My Dictionary**, **VIT Academia** and **My Today's Horoscope**. Also published a Microsoft Office app **Text Case Converter**

## EDUCATION

### 🎓 MS in Computer Science - Specialization Intelligent Systems

#### University Of Colorado Boulder, USA

📅 Aug 2019-May 2021 | 4.0 / 4.0

**Subjects** - ML, NLP, Data Center Scale Computing, Deep Learning, Algorithms, Human-Centered machine Learning

### 🎓 B.Tech in Information Technology

#### Vellore Institute of Technology, Vellore, India

📅 Jul 2012 - May 2016 | 8.63 / 10.0

## SKILLS

Python PyTorch NumPy Node.js

React.js Java C++ C#

JavaScript JQuery HTML CSS

PostgreSQL Solr MongoDB

Neo4j Redis Redux

Nginx Linux Rabbitmq Git

GCP

## AFFILIATIONS

### Microsoft Student Partner

#### Vellore Institute of Technology

📅 April 2014 - April 2015

One of the three MSP for that period in the college. Promoted Microsoft Technologies and organized workshops for teaching windows app development

## INTERESTS

- Natural Language Processing
- Machine Learning
- Human Computer Interaction (HCI)
- Cognitive Science