

# SHUBHAM CHAUDHARY

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## PUBLICATIONS

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### Review Highlights: Opinion Mining on Reviews

*IML17, ACM*

A. Kushwaha & S. Chaudhary

*October 2017, Liverpool United Kingdom*

A hybrid model for rule selection in aspect extraction. Reduce the aspect extraction noise of syntactic rule approach by using a multi-label classifier to select syntactic rules based on the sentence POS structure.

DOI: [10.1145/3109761.3158385](#)

### Bus Boarding Event Detection using Smartphone Sensors

*COMSNET16, IEEE*

S. Chaudhary, T. Kaur, N. Aggarwal, B. Raman, D. Bansal, K.K. Ramakrishnan

*January 2016*

A machine learning model for on body bus boarding activity detection using low power mobile device sensors — accelerometer & GSM location.

DOI: [10.1109/COMSNETS.2016.7439930](#)

## EXPERIENCE

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### Zomato

March 2016 to present

*Lead Software Developer, Machine Learning*

*Gurgaon, India*

- Developed a recommendation system using factorization machine. Dockerized the model and provided gRPC apis to handle production load. Deployed the models using Elastic Beanstalk.
- Developed an image aesthetic quality scoring model by creating ensemble of linear and deep learning models. Wrote fisher vector implementation from scratch for linear model and created a spatial pyramid pooling layer for deep learning model. Fully dockerized this model for production deployment [2 months]
- Built a deep learning model based on alexnet trained on in-house dataset to classify images uploaded on Zomato into food, ambiance, menu & human category. Built apis to allow multiple products to utilize the model. Built robust data pipeline to classify images from multiple sources. [3 months]
- Generated [review highlights](#) using Natural Language Processing, with a test coverage of 75%+. Deployed web apps on a new subdomain behind an ELB. Automated the entire production process using Ansible. Published a [research paper](#) in ACM on a hybrid model for rule selection in aspect extraction. [6 months]
- Developed new scalable user credibility and restaurant [rating algorithm](#) [1 month]
- Developed a scalable review spam detection algorithm using tfidf, cosine distance, mini-batch kmeans clustering, gensim etc. [2 months]
- Developed the common base module to support other ML projects by wrapping services like redis, mysql, etc.

### Zomato

July 2015 to March 2016

*Software Developer, Android*

*Gurgaon, India*

- Handled entire Zomato For Business Android (working end to end — api to apps)
- Published 20+ releases of Business app (including complete makeover in terms of design)
- Spearheaded optimisations for the core modules used in all Android apps (HTTP, serialisation, caching, etc.)
- Optimized [network layer](#), resulting in 30% overall speed improvement
- Reduced cold start time in Android apps by 300%
- Reduced size of Business app by ~40%
- Increased product robustness by putting additional focus on unit tests (junit/robolectric)
- Introduced automated functional tests for faster releases (espresso)
- Introduced and setup continuous integration for multiple Android teams (daily builds with jenkins)
- Reduced 70+ man hours from every release with tests and automation
- Handled backend apis for Business apps

### ThoughtWorks Inc.

Jan 2015 to May 2015

*Intern, Application Developer*

*Gurgaon, India*

- Worked on a healthcare industry project for a company that builds Disinfection Robots
- Developed an Android application which controls the functioning of Disinfection Robots.

- Created REST API to interact with other third party systems.
- Worked on a web based system which takes care of all the hospital management functionalities, client management functionalities, robot management functionalities, etc.
- Optimized heroku deployment, reducing build time from minutes to seconds

**IIT Bombay**  
*Intern, CARTS*

May 2014 to Jan 2015  
*Mumbai, India*

- Created a machine learning algorithm to automate the detection of a public transport boarding event using accelerometer sensor data under ITRA, Govt. of India sponsored project CARTS during summer internship.
- Developed an [Android application](#) based on the research gathered to detect the bus boarding event.
- Published the [research paper](#) in COMSNET conference.

**Develop Freedom**  
*Founder*

2014 to Present  
[github.com/DevelopFreedom](https://github.com/DevelopFreedom)

- Established an open-source organisation to help college students develop quality products using test-driven development and continuous integration

**Peplet Inc.**  
*CEO*

2014 to 2014  
[Peplet.com](https://peplet.com)

- Managed a team of four software engineers to develop Android applications focused to increase productivity by automating monotonous chores with help of artificial intelligence

**Google Code-In Mentor**  
*Google*

2013 to 2014  
*San Francisco Bay Area*

- Supervised 4 students during Google Code-In 2013 assisting through the patch review/submission process.

**Software Developer**  
*KDE e.V.*

2013 to 2014  
*Berlin, Germany*

- Worked on Music Device Synchronization feature in JuK music manager as an intern under SoK (KDE GSoC)
- KDE Project Manager for Juk Music Manager website [juk.kde.org](http://juk.kde.org) and submitted patches to KDevelop an IDE.

## TECHNICAL SKILLS

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<b>Computer Languages</b>	Python, Java, Android, C, C++, Shell Scripting, Php, Matlab, Latex
<b>Softwares &amp; Frameworks</b>	Pandas, Numpy, Scipy, Sklearn, keras, theano, nltk, Flask, nosetests, tox IntelliJ, Android Studio, Debuggers, Memory Profilers, Mockito, PowerMock
<b>Technologies</b>	Redis, MySQL, Boto, Aws, Spots, supervisor, nginx Git, CI, CD, Make, Qt, CMake, Agile, TDD, Machine Learning, AI, Aws, Spots

## EDUCATION

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<b>UIET, Panjab University, Chandigarh</b> B.E. in Computer Science & Engineering	<i>June 2015</i> CGPA: 7.34
<b>Apex Public School, Fatehabad, Haryana</b> CBSE, 12th	<i>March 2010</i> Percentage: 76%
<b>Daffodils Public School, Fatehabad, Haryana</b> CBSE, 10th	<i>March 2008</i> Percentage: 86%

## ACTIVITIES AND HONORS

### HONORS:

**Google APAC Codejam, Google, 2014:** Ranked 464 among 5000 participants all over the globe. CodeJam is a programming contest held by Google.

**ICPC Asia Regional Finals Participant, ACM, 2013:** Represented UIET in the most reputed ACM-ICPC International Collegiate Programming Contest Asia Regional Finals.

**Aspiration 2020 College topper, Infosys, 2013:** Represented UIET in the state level DC final at Infosys development centre in Chandigarh after topping college level programming contest solving 4/4 problems.

**Winner: C-Code Cracker, Technical Committee, UIET, Panjab University, 2012:** Topped the Technical Committee event for 1st and 2nd year students by scoring 5/5 problems.

### ACTIVITIES:

**Github:** Being an enthusiastic github user, I work actively on multiple side projects. I have 40+ public repositories available at [github.com/shubhamchaudhary](https://github.com/shubhamchaudhary)

**PyPi Modules:** I have authored 10+ python modules to [Python Package Index](#). Source code for these is open sourced on Github.

**Android Applications:** I have couple of open sourced Android applications available on Google Play Store [Develop Freedom account](#)

### **VOLUNTEER**

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**Speaker** 2014  
*KDE e.V.* Gandhinagar, Gujarat

- Elucidated the development of kde-multimedia in the biggest developer conference of KDE in India.

**Tutor/Team Leader** 2013 to 2014

- Managed a team of size 10 to organize DFF sponsored two day workshop for new FOSS developers
- Co-founded a programming community to foster competitive programming in college. Tutored DS and Algorithms.