SHUBHAM CHAUDHARY

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PUBLICATIONS

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

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 May 2014 to Jan 2015

Intern, CARTS *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 2014 to Present

Founder *github.com/DevelopFreedom*

· Established an open-source organisation to help college students develop quality products using test-driven developement and continous intergration

Peplet Inc. 2014 to 2014

CEO *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 2013 to 2014

Google *San Francisco Bay Area*

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

Software Developer 2013 to 2014

KDE e.V. *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 and submitted patches to KDevelop an IDE.

TECHNICAL SKILLS

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

EDUCATION

UIET, Panjab University, Chandigarh *June 2015*

B.E. in Computer Science & Engineering CGPA: 7.34

Apex Public School, Fatehabad, Haryana *March 2010*

CBSE, 12th Percentage: 76%

Daffodils Public School, Fatehabad, Haryana *March 2008*

CBSE, 10th 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/ylogx

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

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.