

## EDUCATION

### University of Colorado Boulder

MS, Computer Science

(focus on Intelligent Systems)

Expected, May 2023 | USA

### NIT Trichy

B.Tech, Production Engineering

May 2017 | India

## LINKS

- [Linkedin:// gautamtushar](#)
- [Github:// tushar-rishav](#)
- [Stackoverflow:// tushar-gautam](#)

## COURSEWORK

### Graduate (Fall'21)

- Design and Analysis of Algorithms
- Natural Language Processing
- Machine Learning (*Teaching Asst*)

## SKILLS

### Programming Languages

- JavaScript
- Python
- Rust

### Technology and Platform

- Ansible
- Ceph
- Docker
- Git
- Graylog
- HDFS
- HTML
- InfluxDB
- Kafka
- Kubeflow
- Kubernetes
- Linux
- Mesos
- MongoDB
- Nodejs

## EXPERIENCE

### LG Ads | Software Engineer

June 2017 - June 2021 | Bangalore, India

- Joined Alphonso (*now LG Ads after an acquisition by LG*) as an early engineer. Optimised Automatic Content Recognition (ACR) service to scale from couple hundred servers to a few thousand servers with 5x improvement in search latency which significantly improved the granularity of the content recognition data available for business analytics.
- ACR optimisations were done in two phases —refactored code for Live-TV feed database cache providing vertical scaling, and also optimised Live-TV database deployment pipeline for horizontal scalability.
- Founded Platform Engineering team, architected key platform infrastructure projects for efficient debugging, monitoring and deployment of the microservices. Also built expertise on Mesos, HDFS and Ceph to maintain distributed storage and compute cluster for the Data Engineering team. Developed log collection pipeline using Graylog and ElasticSearch, application metrics collection with Telegraf and InfluxDB, streamlined application deployment with Docker and Kubernetes, setup high-availability and load-balancing of critical services with HaProxy and Floating IPs.
- Built Machine Learning pipeline using Kubeflow, saving significant developer hours per week for the Data Science team. Furthermore, worked on Automatic Speech Recognition system, evaluating and fine-tuning existing state-of-the-art speech recognition models on Alphonso's internal dataset.

### Python Software Foundation | Google Summer of Code

April 2016 – August 2016

- Contributed to Coala —static code analysis FOSS—in Python, under Python Software Foundation. Developed "coala-html" application —AngularJS application to display results from Coala, as an interactive web page.
- Incorporated test-driven development with 97% code coverage for AngularJS and 100% for Python codebase, test automation and wrote code documentation as recommended software development practices.  
<https://github.com/coala/coala-html>.

### Europython | Speaker

July 2016 | Bilbao, Spain

- Presented a session on "*Guide to make an open source contribution*", using Git, CI/CD pipeline at EuroPython — an annual International Python Conference in Europe. Participants made real time contributions to the Coala project.  
<https://tushar-rishav.github.io/EPGit/>

## OPEN SOURCE PROJECTS

- IGitt and GitMate (*Contributor, 2016*) —GitMate provides automated code review and issue triaging for GitHub projects. IGitt as a backbone for GitMate, provides REST interface to access git hosting services eg GitHub. Contributed bug fixes and implemented new feature to predict bug rank for incoming patch using bug prediction algorithm BugSpot from Google
- [Code Control](#) (*Contributor, 2016*) —Online game based on Graph algorithms, player writes program in Javascript to control a bot character in 2D grid with attack and defend strategies and defeat opponent player's character to win the game. Game was live during <https://pragyan.org/21/home/> 2016 - annual Tech Fest at NIT Trichy