# **Tushar Gautam**

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# **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** 

- Python JavaScript Rust Technology and Platform
- Nodejs Linux
- Docker Kubeflow Kubernetes
- Mesos HDFS Ceph
- Kafka Graylog
- InfluxDB MongoDB
- Ansible Git
- HTML

### **EXPERIENCE**

#### LG Ads | Software Engineer

June 2017 - June 2021 | Bangalore, India

- Joined Alphonso (named LG Ads after an acquisition by LG) as the  $10^{th}$  engineer. Endowed with full responsibilities tackling exciting problems under the mentorship of the Founders. My contributions were focused on various projects as outlined below:
- Refactored Live-TV feed database cache, in Node.js, to optimise ACR search, and
  optimised critical Live-TV feed database deployment to scale across thousands of
  servers within a sub-second time. Efforts paid off enabling ACR services to scale
  from couple hundred to a few thousand servers with 5x improvement in latency.
- As a founding member of the Platform Engineering team, led a small team
  architecting key platform infrastructure projects —log collection pipeline with
  Graylog and ElasticSearch, application metrics collection and monitoring with
  Telegraf and InfluxDB, streamlined application deployment with Docker and
  Kubernetes, High-availability and Load-balancing of critical services with HaProxy
  and Floating IPs. Also built expertise on Mesos, HDFS and Ceph for managing large
  scale distributed storage and compute cluster.
- Setup Machine Learning pipeline based on Kubeflow, saving significant developer hours per week for the Data Science team. Furthermore, worked on building Automatic Speech Recognition system, evaluating and fine-tuning existing state of the art models on Alphonso's 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 —Angular JS 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. Github/coala-html.

## Europython | Speaker

July 2016 | Bilbao, Spain

• Conducted a 3hrs training session titled "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 coala project. Slides.

### **Delta Club** | Student Software Developer

July 2014 - May 2017 | NIT Trichy

• As a core member of elite programming club, collaborated on maintenance of the University website, development, administration and updating most of the contents on institute intranet.

# OPEN SOURCE PROJECTS

- <u>IGitt</u> and <u>GitMate</u> (*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
- <u>Code Control</u> (*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