

Tushar Gautam

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EDUCATION

University of Colorado Boulder

MS, Computer Science

Expected, May 2023 | USA

NIT, Trichy

B.Tech, Production Engineering

May 2017 | India

LINKS

- Github
- LinkedIn
- Website
- Stackoverflow

COURSEWORK

Graduate (Fall'21)

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

SKILLS

Programming Languages

• Python • JavaScript • C++

Technology

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

EXPERIENCE

LG Ads | Software Engineer

June 2017 - June 2021 | Bangalore, India

- Refactored Live-TV feed database cache data structure, in **Node.js**, to **optimise search lookup** in Automatic Content Recognition (ACR), providing **vertical scaling**.
- Redesigned critical Live-TV feed database deployment pipeline to scale across thousands of servers within a sub-second time, providing **horizontal scaling**.
- Designed a distributed log collection pipeline with **Graylog** and **ElasticSearch**, application metrics collection and monitoring with **Telegraf** and **InfluxDB**, streamlined application deployment via **Docker** and **Kubernetes**, High-availability and Load-balancing of critical services via **HaProxy** and **Floating IPs**. Also built expertise on **Mesos**, **HDFS** and **Ceph** for **managing large scale distributed storage and compute cluster**.
- Designed **Machine Learning (ML)** pipeline based on **Kubeflow**.

Python Software Foundation | Google Summer of Code

April 2016 - August 2016

- Contributed to Coala, a static code analysis FOSS, in **Python**, under Python Software Foundation.
- Developed "coala-html" application, an **AngularJS** application to display results from Coala, as an interactive web page.
- Learnt first hand experience with **test-driven development** with 97% **code coverage** for AngularJS and 100% for Python codebase, **test automation** and importance of **code documentation**. [Github/coala-html](#).

Europython | Speaker

July 2016 | Bilbao, Spain

- Conducted a training session titled "*Guide to make an open source contribution*", using **Git**, **Continuous Integration and Deployment** tools at EuroPython — an annual International Python Conference in Europe.
- Participants were introduced to an **open source contribution workflow**, and made real time contributions to coala project. [Slides](#).

PayU | Software Development Intern

June 2015 - July 2015 | Pune, India

- Refactored a critical client side payment gateway module, in **Javascript** and patched bugs. While still in sophomore years, I got a glimpse of entire **software life-cycle**.

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 CONTRIBUTIONS

- coala (*Maintainer and Contributor, 2016-2017*)
- coala-html
- IGitt
- Code2PDF
- Topcoder Downloader
- Code-Control