# ANSHUL GUPTA

@ anshulgupta0803@gmail.com  +91-916-662-8880  bit.ly/ansh0803

## INTERNSHIPS

### Google Summer of Code 2017 (The Linux Foundation)

**Common Print Dialog**

Jun '17 — Aug '17  —  git

- Designed and build a unified solution for printing in desktop environments
- **Focus**: C++, Qt, DBus

### École Normale Supérieure de Lyon (INRIA)

**Towards more scalable off-line simulation of MPI applications**

May '14 — Jul '14  Lyon, France  git

- Developed a framework for scalable time-independent trace replay for off-line simulation of MPI applications
- **Focus**: R, MPI, C++

### Indraprastha Institute of Information Technology, Delhi

**Performance analysis and Optimization of Hadoop based cluster**

May '13 — Jul '13  New Delhi, India

- Analyzed the effect of various configuration parameters on Hadoop performance under various conditions to achieve maximum throughput
- **Focus**: Hadoop

## M.TECH. DISSERTATION

**Scalability, Reliability, and Security of BodhiTree**

Jul '18 — Present

- **OBJECTIVE** — Supporting no more than 250 students combined with the security bugs, BodhiTree needs to be revamped, so that theoretically, its performance can increase linearly with linear increase in resources

## PROJECTS

**ASSR: Automatic Stuttered Speech Recognition** *Autumn '17*

- **OBJECTIVE** — Enabling people having a stuttering speech impediment to use the current state-of-the-art speech-to-text systems
- **Focus**: Python, Audio Processing

**Face Recognition using Faster R-CNN** *Spring '17*

- **OBJECTIVE** — Draw bounding box on all the faces in an image
- **Focus**: Python, Image Processing

**Machine Learning approach for Music Genre Classification** *Spring '16*

- Used neural nets and decision trees to classify music into different categories: Rock, Hip Hop, Jazz, etc.
- **Focus**: Python, Audio Processing

**Resource Provisioning of LXD Containers** *Autumn '16*

- **OBJECTIVE** — Prevent memory SLA violations in LXD based containers

## PUBLICATIONS

### Journal Articles

- Casanova, Henri, Anshul Gupta, and Frédéric Suter (2015). "**Toward more scalable off-line simulations of MPI applications**". In: *Parallel Processing Letters* 25.03, p. 1541002.

### Conference Proceedings

- Apte, Varsha et al. (2017). "**AutoPerf: Automated load testing and resource usage profiling of multi-tier internet applications**". In: *Proceedings of the 8th ACM/SPEC on International Conference on Performance Engineering*, pp. 115–126.
- Bansal, Garvit et al. (2014). "**A framework for performance analysis and tuning in hadoop based clusters**". In: *Smarter Planet and Big Data Analytics Workshop (SPBDA 2014), held in conjunction with International Conference on Distributed Computing and Networking (ICDCN 2014), Coimbatore, INDIA*.

## WORK EXPERIENCE

### Research Assistant

**CSE, IIT Bombay — Prof. Varsha Apte**

Jul '16 — Present

- Did experiments on client bottleneck detection and scalability of AutoPerf
- Upgraded AutoPerf so that it supports newer Java version, Maven architecture, and Google's style guide

## EDUCATION

### IIT Bombay

**M.Tech. in Computer Science & Engineering**

Jul '16 — Present  **GPA** 8.33 / 10

### The LNM IIT, Jaipur

**B.Tech. in Computer Science & Engineering**

Jul '11 — May '15  **GPA** 7.59 / 10

- **Focus**: Python, LXD Containers,

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**txt2midi: Indian musical notations to MIDI using Python** *Autumn '16*

- **OBJECTIVE** — Convert Indian classical music notation from text to MIDI