

# Siddhant Rao

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📄 [siddhantrao23.github.io/](https://siddhantrao23.github.io/)

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## Interests and Skills

Areas of Interest	Systems, Cloud Computing, Algorithms and Data-Structures, Computer Graphics, Programming Languages
Languages	C/C++, Python, Rust, Go, Javascript, MySQL, Java, Haskell
Technologies	Open-Source, Docker, Linux, Django, HTML5, CSS3, Bootstrap4
Tools	Git, GitHub, Amazon Web Services, Emacs, Google Cloud Console, Visual Studio Code
Soft Skills	Analytical and Curious, Logical, Community Oriented

## Projects

### **gandiva query caching.**

Improving query caching in Gandiva, an execution kernel used by Apache Arrow

- Developing strategies for efficient query caching
- Implementing parameterization of literals at LLVM IR code level
- Measuring and plotting the CPU time and improvement metrics

### **flashy.**

A flashcard app built using Django

- Hosting Applications on Heroku ([flashy-cards-app.herokuapp.com](https://flashy-cards-app.herokuapp.com))
- Developing APIs for the backend
- Writing Database models and queries to retrieve data

### **chippy.**

A chip8 emulator written in Rust and compiled to WebAssembly

- Developing and Emulating Chip8 instructions compatible with rust
- Passing shared memory and providing JavaScript bindings to rust functions using WebAssembly

### **sadenstein.**

An old school FPS game in C++ inspired by Wolfenstein 3D

- Modeled Object Oriented Concepts
- Ran Cmake to build multiple files

### **hydr0.**

An Open Source Arduino project for Monitoring your Hydroponic kit

- Designed the circuit using fritzing diagram
- Documented different parts and components of the kit

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## Experience

### **Lead of Operations, *PES Open Source Club*.**

Part of the core team and lead the operations and working of the newly formed club

- Scheduled a 2 day event for Hacktoberfest with a Day of Talks and Hack Day attended by esteemed guests from the Open Source Scene
- Conducted many online workshops for University Students
- Regulated Community involvement in the communication channels

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## Education

2018–2022 **B. Tech., *PES University*, Bangalore, 9.09 CGPA.**

- Completed a course on Cloud Computing and Big Data along with lab based work in AWS (EC2, EBS, RDS, lambdas, cloudwatch)
- Completed a course on Artificial Intelligence in PESU I/O taught by seniors
- Volunteered for The Amateur Scientist fest '18
- Volunteered for AathmaTrisha fest '19

2016–2018 **High School, *Delhi Public School*, Bangalore North.**

- 12th Grade: 96.6%
- 10th Grade: 10 CGPA
- Volunteered for Impressions fest

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## Awards & Certificates

- Two time recipient of Prof MRD Scholarship for securing top 20% grade at University
- Received the Prof. CNR Rao Scholarship for securing 9.46 CGPA in the 1st semester at University
- Google Cloud Certification in:
  - NCAA® March Madness®: Bracketology with Google Cloud
  - Google Developer Essentials
  - GCP Essentials
  - OK Google: Build Interactive Apps with Google Assistant
- Secured the General Proficiency and English Proficiency Award in 12th Grade

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## Open Source Contributions

- [www.github.com/CatEars/goto](https://www.github.com/CatEars/goto)
- [www.github.com/domeengine/dome](https://www.github.com/domeengine/dome)
- [www.github.com/pesos/grofer](https://www.github.com/pesos/grofer)
- [www.github.com/pesos/rshark](https://www.github.com/pesos/rshark)