

# Vipul Chhabra

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## Education

**International Institute of Information Technology, Hyderabad** 9.05/10.0  
B.Tech (Honors) and MS by Research in Computer Science Engineering 2019-2023 (*Expected*)  
Advisors: Prof Krishna Reddy P., Data Science and Analytics Lab, IIIT Hyderabad

## Internships and Research Projects

### Student Developer, Virtual Labs (An MHRD Govt. Of India initiative)

- Porting of Speech Signal Processing Lab from Java Applet, PHP to JavaScript *January 2020*
- Improving the UI and make uniform across all the labs

### Student Developer, Crio.Do

- Developed back-end for dummy food ordering app "Q-Eats" using Spring Boot *Summer 2019*
- Used **Mulithreading** to improve the performance, learnt more about **scaling** of the backend.
- Containerized using **Docker** and delpoyed it to GCP.

### Research Intern, IIT Ropar

Guide: Sudarshan Iyengar, IIT Ropar, India

*Summer 2019*

- Worked on improving the research paper in field of Knowledge building.
- Analyzed the **Knowledge Building** from collaborative platforms like StackOverflow

## Open Source Contribution

### Popper

- Popper is a tool for defining and **executing container-native** workflows in Docker and other container engines.
- Developed some of the important functionalities, useful for reproducing researches.

## Key Academic Projects

### Custom Linux Shell

Guide: Prof P.K. Reddy, IIIT Hyderabad

- Devloped unix shell using C from scratch.
- Used some of the **system calls** to implement the functionalities like ls, pinfo etc with flags.
- Implemeted tokenization of the commands, piping, i/o redirections etc. from scratch.

### In-Memory Key-Value Storage

Guide: Dr. Rahul Jain, rENIAC Inc, Hyderabad

- Created In-memory Key-Value database in C++.
- Implemented using **B-Tree** data structure for the storage of keys.
- Scaled for performing **2 Million Operation in less than 30 Sec** and consuming maximum of 6GB of Ram.

### Bulk Shopping Store

Guide: Prof Ramesh Loganathan, IIIT Hyderabad

- Created bulk shopping app created using **MERN-Stack**(Node Js, and React, Mongo DB)
- Implemented **REST architectural** design and created seperate portal for vendors and customers.

## Technical Strengths

- Programming Languages:** C/C++, Python, Bash, Java
- Development:** HTML, CSS, Flask, PHP, Bootstrap, JavaScript, Node Js, React.
- Others:** SQL, Mongo-DB, Requests, Matplotlib, Bokeh, Selenium, PyAutoGUI, Unittest.