

# RAHUL BOTHRA

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<https://github.com/pro-panda>

## WORK EXPERIENCE

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### Microsoft R&D

May' 19 - July' 19

*Software Engineer Intern*

- Developed Azure Monitor support bot to resolve user queries by providing monitoring insights, pointing to the right documentation and filing support tickets.
- Intended to reduce turnaround time for customer queries and reduce support tickets.
- Written in Typescript & NodeJS over Azure Bot Framework. Implemented RBAC checks and async message handling.

### Google Summer of Code

May' 18 - Aug' 18

*Student Developer*

- Worked with Sugar Labs to implement cross version Python support for the Sugar OS.
- Migrated dbus and Telepathy based networking interface to its PyGObject binding.

### Vahan Inc

May' 17 - June' 17

*Software Engineer Intern*

- Developed customized dashboards for clients to derive usage analytics of the product.
- Wrote unit tests for core modules and did hotfix; Written in HTML+JS & NodeJS.

### Hyperloop India

Sept' 16 - Aug' 17

*Levitation Engineer*

- Designed and manufactured the levitation assembly of the pod to optimize the lift to drag ratio.
- Amongst 24 world finalist teams in the SpaceX Global Challenge.

## VOLUNTEER EXPERIENCE

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### Student Welfare Division, BITS Pilani

Jan' 19 - May' 19

*part-time Software Engineer*

- Restructured the database schema to remove redundancies and anomalies.
- Fixed critical security bugs and added new features to the web portal; Written in VB over .NET.

### Sugar Labs

Jan' 18 - present

*Open Source Developer*

- Contribute and review code for the Sugar OS architecture and various applications running over it.
- Org Admin in GSoC 2019; acted as liason to Google, oversee all projects, and mentored two of them.
- Mentor in Google-Code-In 2018; curated coding tasks and mentored high-school students.

## EDUCATION

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### Birla Institute of Technology and Science, Pilani

Aug' 16 - exp. Dec' 19

B.E. in Computer Science with a GPA of 3.14/4.00

- Ongoing thesis on Clustered Orienteering Problem under Prof. Abhishek Mishra.
- Teaching Asst. for Logic in Computer Science under Prof S. Balasubramaniam.
- Teaching Asst. for Computer Programming under Prof. S. Raman.
- Programming - SIG head for ACM chapter, gave talks on various Computer Science topics.

## PROJECTS

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### **Object-Aware Seam Carving**

Ongoing attempt to improve seam selection in the Seam Carving algorithm to prevent biased distortion and retention of objects in images.

### **powersh - Transformer Fleet Management System**

Developed a software system comprising of,

- A web portal for control centers to manage inventory, view tickets and monitor transformer health.
- A mobile application for ground workers to resolve tickets and provide feedback. Written in ReactJS.
- A transformer simulator over a Pi to send health data to the cloud server.
- A cloud server to connect all components and expose relevant APIs. Used the Flask framework.

### **Catastrofree Mobile Application**

Developed a mobile application to assist people stuck in natural disasters by guiding them to the nearest safe location based on peer feedback. It also helps in connecting lost people to their families. An interface for rescue teams provides optimal routes for evacuation and transporting supplies.

### **BOB - Bot of BITS**

Made a cloud server to serve answers to typical queries of college students, and connected the endpoint to Facebook. It got 500+ users out of 3000 students in the first 10 hours of launch.

## ACHIEVEMENTS

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- Smart India Hackathon 2019 National Winner, for the "powersh" project
- Microsoft CodeFunDo++ College Winner, for the "Catastrofree" project
- Received KVPY Fellowship in 2015; Ranked 357 out of 100,000 applicants
- Received NTSE Scholarship in 2014; Awarded to 750 students out of 1 million applicants