RAHUL BOTHRA

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WORK EXPERIENCE

Microsoft R&D   May' 19 - July' 19
Software Engineer Intern

- Developed Azure Monitor Support Bot to help reduce the turnaround time for customer queries and the number of support tickets.
- Bot provides users with insights into service failure instances and supports automated ticket filing.
- Developed over Azure Web UI in TypeScript and over Azure Bot Service in NodeJS.
- Authenticated users via RBAC checks and added async message handling on server side.

Google Summer of Code - Sugar Labs   May' 18 - Aug' 18
Student Developer

- Worked on adding cross version Python support for the Sugar OS and the core set of applications.
- Migrated dbus and Telepathy based networking interface to its PyGObject binding.
- Shipped cross version support in Sugar 0.116 for Debian and Fedora.

Vahan Inc   May' 17 - June' 17
Software Engineer Intern

- Developed customized dashboards for clients to derive product usage analytics; Used HTML+JS.
- Wrote unit tests for core NodeJS server-side modules and did hotfix.

EDUCATION

Birla Institute of Technology and Science, Pilani   Aug' 16 - exp. Dec' 19
B.E. in Computer Science with a GPA of 7.85/10.00

- 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.

VOLUNTEER EXPERIENCE

Student Welfare Division, BITS Pilani   Jan' 19 - May' 19
part-time Software Engineer

- Restructured the database schema to remove redundancies and anomalies; reduced size by 20%
- Fixed critical security issues and added new features to the web portal; Written in VB over .NET.

Sugar Labs   Jan' 18 - present
Open Source Developer

- Maintainer of the Sugar OS architecture and a few native applications.
- Org Admin in GSoC 2019; acted as liason to Google, and mentored projects.
- Mentor in Google-Code-In 2018; curated coding tasks and mentored high-school students.

Hyperloop India   Sept' 16 - Aug' 17
Levitation Engineer

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

PROJECTS

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 with,
· Web portal for control centers to manage inventory, view tickets and monitor transformer health.
· Mobile application for ground workers to resolve tickets and provide feedback. Written in ReactJS.
· Transformer simulator over a Pi to send health data to the cloud server.
· Cloud server to connect all components and expose relevant APIs. Written over a Flask instance.

Catastrofree - Disaster Assistance Application
Developed a mobile application to assist people in areas hit by natural disasters by,
· Guiding people to the nearest safe location based on peer feedback and rescue teams' location.
· Helping find missing people via face recognition, by allowing posting photos of lost and found people.
· Adding a dashboard for rescue teams to get an optimal route for evacuation and supplying essentials.

B.O.B. (Bot of BITS)
· Maintaining a cloud service to serve answers to typical queries of students at BITS Pilani.
· Connected the endpoint to a Facebook chatbot, and got 500+ users in the first 10 hours.

ACHIEVEMENTS

· 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