

Madhav Tummala

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EDUCATION

IIT Bhubaneswar

B.Tech in Computer Science
July 2020

Current CGPA: 9.72/10

Mahati Junior College

Board of Intermediate Education, AP
March 2016 | Vizag, India
Percentage: 97.6%

Achievements

- Won 1st Prize at Smart India Hackathon 2019 (Team : Champions_sam)
- Qualified for ACM ICPC 2017 Regionals.
- Represented IIT Bhubaneswar in Tech-Expo at Inter IIT Tech Meet 2018.
- Received perks from Amazon for publishing a skill at Indian Alexa Skills Store.

Skills

- Languages: C/C++, Python, Bash
- VCS: Git
- Data Structures and Algorithms
- Raspberry Pi, Logisim
- Operating Systems

Main Courses

- Operating Systems
- Computer Networks
- Database Management
- Machine Learning (Andrew NG)

Positions of Responsibility

- Core Head of Web and Design Team of E-Summit, IIT Bhubaneswar.
- Member of Developer Student Clubs, IIT BBS.
- Member of RISC, Robotics and Intelligent Systems Club.

EXPERIENCE

[Intern. Max Planck Institute for Software Systems](#)

May 2019 - July 2019 | Saarbrücken, Germany

- Research in the area of optimising VMs for serverless technologies like AWS lambda.
- Developed scripts to create, edit, and customise minimal root-fs images of linux and tweaked the init system to run only necessary services and processes.
- Performed detailed measurements of Linux boot process by recording instruction traces using Qemu
- Developed post-processing scripts to map the instruction traces to time spent in individual os components and also to analyze similarities between multiple huge instruction traces.

[Intern. IIT Hyderabad](#)

May 2018 - July 2018 | Hyderabad, India

- Made “Whippersnapper 2.0”, a synthetic benchmark for testing the performance of P4 compilers.
- Used tshark tool to carry out latency measurements in a software switch running the p4 code.
- Developed scripts to collect data for analysing codesize vs optimisations by using LLVM Test Suite and SPEC 2017 benchmarks.

PROJECTS

[SwayamSevak](#), Cisco DevNet, SIH 2019

March 2019

- A customer service chatbot for public places like hospitals and railways which automatically opens upon connecting to the wifi access point. Uses NLP.
- Made a python application (hosted on Heroku) to respond to dialogflow fulfillment webhook calls.
- Made an endpoint to respond to database queries using PHP and MySQL.
- Made changes to the front-end to send broadcast messages with optional timeout and added video calling support.

[GiMS](#)

April 2019

- Secure, distributed, multi user access level, equipment issue and inventory management system.
- Digitalization of forms (applications and acceptance)
- Front End with html, css, js, ajax for data tables.
- Back End with php, mysql.
- A python cron job for mail service.
- Extra features for automatic fines, item requests, feedback, etc.