

Parth Thakkar

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Education

National Institute of Technology, Trichy

B.Tech (Hons.)
Computer Science and Engineering
2014-2018
CGPA 8.90

Links

github// **thakkarparth007**
linkedin// **thakkar-parth**

Coursework

Operating Systems
Formal Languages & Automata
Computer Architecture
High Speed Networks
Databases
Data Structures
Algorithms
Probability Theory

Languages

C • C++ • Javascript
Python • SQL • CSS
Intermediate
GoLang • Java • PHP
Familiar
Lisp • Bash

Tools & Tech

Webdev:

Node.js • MongoDB
MySQL • Websockets
Express.js • Laravel
JWT • jQuery

Bootstrap • BackboneJS

Platforms

OpenStack • AWS • Linux
CUDA • Hyperledger
Wireshark • Alexa Skills Kit

Dev tools

Git • Gradle
NPM • L^AT_EX

Experience

Nov - Dec 2016 **DOS Lab, IIT Madras, India**

Research Intern

- Worked at the Distributed and Object Systems lab on setting up a hybrid private cloud between IIT M and CDAC Chennai using OpenStack.
- The cloud is powered by BOSS MOOL, a Linux variant offering certain novel features.
- Proposed a secure software-license sharing mechanism between multiple private clouds deployed on OpenStack

Aug 2016 - Now **IBM, India**

Student Developer

- Working on developing a Blockchain based B2B platform for IBM using Hyperledger.
- Working on a hybrid mobile app for customers using the ionic framework.
- Using govt's Aadhaar APIs for authentication and e-KYC, and UPI for handling payments.

May-Jul 2016 **Amazon Development Center, India**

Software Engineer Intern

- Worked on an Echo-driven Tech Conference, where Amazon Echo devices use voice recognition to act as help desks and MoC's.
- Built a fully serverless backend on AWS to power FireOS apps, the Echo devices and a website. Designed the system with unreliable network in mind.
- Wrote integration tests and handled deployment and Ops of the whole system.
- Successfully deployed and used at Amazon's India Tech Conference '16.

Projects

Oct 2016–Now **Dalal Street**

Lead Programmer

- Event in Pragyan '17, international tech fest of NIT Trichy. A virtual stock market game where players compete against each other and bots to get rich.
- Leading a team of 13 programmers to make a realtime platform involving a C++ matching engine, a market simulation model and automated bots.
- Developing a websocket based API in Go to support hundreds of concurrent mobile, web and bot clients.

Aug - Oct 2016 **Optimizing performance of Neural Network algorithms for ASR on CUDA**

- Sped up an existing implementation of parallel neural network that recognizes phonemes on CUDA by 40x.

Oct 2016 **XSalsa20 Stream Cipher**

github/thakkarparth007/salsa20

- Extended an existing Salsa20 implementation to also support XSalsa20.
- Wrote Matlab code to analyse the cipher's properties.

Awards

Jan 2017 **Shaastra Programming Challenge**

2nd place out of 495 teams

Showcased knowledge of and aptitude for programming and algorithms in Shaastra'17, IIT M's techno-management festival.

Aug 2016 **Hack InOut**

2nd place

Made a voice-based interactive bot that teaches students over a basic telephone and answers basic queries, all in Hindi, for Hack InOut '16, one of India's largest student-run hackathons, hosted by NIT Surat.

Feb 2016 **Three's a Crowd**

3rd place

Showcased ability to design a complex algorithm, split the task effectively and to work efficiently in a team in Pragyan '16, the international techno-management festival of NIT Trichy.

Jan 2016 **Code O Soccer**

3rd place

Coded robots to play soccer using finite state machines in Kshitij '16, Asia's largest techno-management festival conducted by IIT Kharagpur.