NIMAI PATEL

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EDUCATION

D.J. Sanghvi College of Engineering   2019 - 2023 (expected)

- B.Tech IT Engineering with average CGPA **9.37/10** over 6 semesters

SKILLS

Programming Languages

- C, C++, UNIX shell script, Python, JavaScript, Haskell, Lua, LaTeX, Solidity

Tools

- Git, GNU/Linux, make, cmake, flex & bison, UNIX and GNU core utilities, Vim, gdb, Hadoop

Web and Mobile Development

- React, Node.js, Flutter and Dart, MongoDB, PostgreSQL, Web Sockets, RESTFful APIs

Embedded Systems

- ESP32, IDF, Arduino

Blockchain Development

- Ganache and Truffle suite, Ethereum development with Solidity

EXPERIENCE

Embedded Systems Engineer at Meshnet Electronics   Since March 2022

- Implemented over-the-air updates, NTP time syncing, remote configuration of SOCs, serial configuration of SOCs, communication over modbus
- Designed all components with minimal coupling so that they could be put into any project with little effort
- Conducted testing efforts which included range testing, sensor calibration and OTA reliability testing

BAS and SOC developer at Tata Advanced Systems Limited   Since July 2022

- For my senior year capstone project, I am developing a breach attack simulation software and security operations center for Tata Advanced Systems Limited
- Drafting a review paper about existing BAS systems and will be submitting it to the *9th Somaiya International Conference on Technology and Information Management*

SOC Analyst Intern at RNS Technology   August 2021 - September 2021

- This is my sophomore year summer internship at RNS Technology which is a cyber security firm
- Learnt about system and organization control operations and how these repetitive tasks can be automated

EXTRA CURRICULAR ACTIVITIES

Conducted lectures for Operating Systems Course

- Taught classes of 60+ students each about shell scripting, terminal commands, operating system pipes, virtualization and automation under guidance of Prof. Sharvari Patil

Technical Head of Computer Society of India at College   December 2020 - August 2022

- Mentored a team of 5 sophomores in various projects that we take up for the college's CSI chapter
- Maintained and developed the various websites and server side software that CSI uses
- Organized mulitple events including hackathons, competitions and workshops

Instructor at Competitive Programming Club   October 2020 - July 2021

- Organized and conducted lectures for freshmen students, including ones with non-CS backgrounds
- Covered basics of C programming and taught concepts like for-loops, if-else statements, arrays, and introduced beginner competitive programming problems

Technical Team Member at Literature Society   September 2020 - August 2021

- Automated routine server tasks and maintained the CMS based website
- Organized literature related events and handled technical aspect of online events during the COVID-19 pandemic

Projects and Papers

Rideshare - a decentralized ride-hailing system
- Rideshare is a decentralized ride-hailing system that runs on mobile devices
- It uses the *Ethereum* block chain and *Interplanetary File System* to decentralize the process of booking a cab to minimize the involvement of middle-men
- Authored a paper on the same and submitted to *4th IEEE Bombay Section Signature Conference*. The paper is accepted for oral presentation and will be published in *IEEE Xplore.*
- Repository link: https://github.com/nimaipatel/ipd

brn – bulk rename utility
- This is a text editor based bulk rename utility written in C for GNU/Linux, it lists all the file names in a text buffer from where they can be easily bulk renamed using advanced editing capabilities
- Compared to similar programs written in scripting languages, brn can handle name swapping using GNU/Linux's renameat2 system call
- Repository link: https://github.com/nimaipatel/brn
- Package published on Arch Linux's AUR: https://aur.archlinux.org/packages/brn-git

dwm, st and dmenu
- These are my forks of C-based X11 window manager, terminal emulator and menu generation utility, patched with features such as on-the-fly configuration changes using UNIX signals
- Repository link: https://github.com/nimaipatel/st

Various web applications developed for the college and as part of hackathons
- Official Website of College's CSI Student Chapter, running at: https://djcsi.co.in
- Leaving Certificate and Railway Consession generation system: used by students to request railway concession from the college and generating leaving certificates
- FindIt – A Lost & Found Management tool: This was my team's submission to CSI's hackathon, repository: https://github.com/nimaipatel/findit
- StackReview – A code review website: this was my team's submission to OAuth's 2020 Hackathon, repository: https://github.com/stackreview