Swaraj Hota

A curious soul, on a quest to explore and learn the depths of Computer Science. Coder by habit and researcher from heart. Interested in low level programming projects and core computer science research.

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EDUCATION

B.Tech in Information Technology
IIIT Bhubaneswar

07/2017 - Present   *CGPA: 8.43*

Class XII CBSE
Vikash Residential School, Bargarh

06/2016 - 03/2017   *Percentage: 89%*

Class X CBSE
Vikash Residential School, Bargarh

06/2014 - 03/2015   *CGPA: 10*

PERSONAL PROJECTS

Intel 8080 Emulator ⎘
– A full Intel 8080 emulator written in C, along with emulation of the game "Space Invaders" with its arcade machine.

TermOS ⎘
– A simple x86 based hobby OS made from scratch, written in C. The OS currently features a custom bootloader, SFS file system support, kernel's own libc, necessary drivers (Keyboard, Display, IDE), FIFO task scheduler, and a simple shell to execute commands.

Chat App using E2E encryption ⎘
– A console based Java chat application. The messages are End-to-End encrypted using Asymmetric Encryption. Key exchange and key storage functionalities are added.

TweetParse ⎘
– An android app that fetches tweets on bitcoins from API, parses and displays the data implementing RecyclerView + CardView + SqliteDatabase.

WORK EXPERIENCE

Google Summer of Code 2020 participant with Apertus Association
Apertus Association ⎘

05/2020 - Present

Linux Kernel Driver for Lattice MachXO2 programming/debugging

– A Linux Kernel Driver for programming/debugging the Lattice MachXO2 FPGAs (used as routing fabrics) in AXIOM Beta Main Board. ⎘

Google Summer of Code 2019 participant with FFmpeg
FFmpeg ⎘

05/2019 - 08/2019

HEIF Support

– Worked on the support for High Efficiency Image Format (HEIF) Images in FFmpeg. ⎘

SKILLS

C   C++   Java   Android App Development

Python   x86 asm   RISC-V asm   Bash   Linux

Linux Kernel Development   Embedded Software

ACHIEVEMENTS

Qualified for ACM ICPC Onsite Contest 2018 (Kolkata-Kanpur and Amritapuri) for Competitive Programming

CERTIFICATES

Google Summer of Code 2019 Completion ⎘

ACM ICPC Onsite Contest 2018 ⎘

RCPL Machine Learning Workshop - 2018 ⎘

Hack2Explore Ethical Hacking Workshop - 2017 ⎘

RoboTech Labs ARM Processor Workshop - 2017 ⎘

LANGUAGES

English
Native or Bilingual Proficiency

Hindi
Native or Bilingual Proficiency

Odia
Native or Bilingual Proficiency

INTERESTS

Reading Books   Playing Guitar   Chess   Coding

Science and Technology   Teaching

Watching Talks and Lectures   Exploring New Interests