# Bhavik Sachdev

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### EDUCATION

### International Institute of Information Technology, Naya Raipur

Bachelor of Technology in Computer Science

Nov. 2022 - May 2026

#### Delhi Public School, Raipur

92.6%

CGPA: 9.03

Senior Secondary School

2022

#### EXPERIENCE

### Google Summer of Code 2025: CRIU 🗹 | C, linux kernel

May 2025 - Nov 2025

- CRIU (Checkpoint/Restore in Userspace) allows you to stop a running application, save its state to disk and restart it using that data.
- Working on adding supported for files on "unmounted" mounts to CRIU.
- Modifying the statmount syscall in the Linux Kernel to export mountinfo for "unmounted" mounts 🗹

### Backend Intern: Fam (FamPay) 🗗 | Django, Go, SQL, Kafka

Feb 2025 - Aug 2025

- Migrated out SMS delivery from a Python monolith to a Golang-based Kafka driven notification microservice, entirely removing database calls.
- Developed a templating engine to manage notification templates and provider details, enabling faster and more flexible message delivery.
- Migrated out a high-traffic FCM token update API end point, from the python to go microservice which serves 800 requests/second.
- Added support for reversing gold transactions in the Python monolith, helping solve support tickets.

### Google Summer of Code 2024: CRIU 🗗 | C, linux

May 2024 - Aug 2024

- Worked on adding support for pidfd file descriptors in CRIU (Work Report  $\square$ )
- Improved CRIU's ZDTM test suite by differentiating between dump failures and dump crashes 🗹

#### PROJECTS

### bhshell 🗹 | C, linux

• Constructed a simple **shell** from scratch complete with **output redirection** to file (or stdout) and the ability to **pipe** to another command. Demonstrates proficiency in Linux processes.

## Blog Aggregator 🗗 | Go, postgres

- Supports User Creation/Deletion, Adding/Deleting Feeds, Fetch all of the latest posts from RSS feeds a user follows, user specific end points require authentication headers, Wrote a periodically running **scraper** that updates the news feed with new posts.

# Wordy: A Wordle Solver 🗹 | Python, Information Theory

- Developed a 5, 6, 7 letter wordle 🗷 solver along with a CLI to use the solver, Solver can guess a 5 letter word under 4 tries, 6 and 7 letter words in 3 tries
- Used **Information Theory** and **entropy** to develop an algorithm for the next best guess

#### TECHNICAL SKILLS

Languages: C, Python, Go, SQL (SQLite, PostgreSQL, MySQL), JavaScript

Technologies: Git, MakeFile, Linux, Kafka, Django, Protocol Buffers, Neovim (config 🗹)

Relevant Coursework: OS - I, OS - II, DBMS - I, DBMS - II, Data Structures, Design and Analysis of Algorithms, Data Communication, Computer Networks, Computer Organisation, Computer Architecture, Machine Learning,

Software Engineering

Online Courses: CS50x 🗷, CS50 Python 🖸