Bhavik Sachdev

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EDUCATION

International Institute of Information Technology, Naya Raipur

CGPA: 9.00

Bachelor of Technology in Computer Science

Nov. 2022 - May 2026

Delhi Public School, Raipur

92.6%

Senior Secondary School

2022

OPEN SOURCE EXPERIENCE

Google Summer of Code 2024: CRIU

May 2024 – Present

- Working on adding support for pidfd file descriptors in CRIU (Draft **PR** 🗹)
- Improved CRIU's ZDTM test suite by differentiating between dump failures and dump crashes
 Minor contributions to sympy

PROJECTS

cmonkey [WIP] ☑ | C, Interpreters

- Includes a fully working lexer and REPL for the monkey programming language 🗹
- Implements a custom hash table using linear probing for the interpreter

pretty-toggl: CLI for Toggl Track 🛂 | Go, CLI, Cobra, bubbletea

- Implements functionality for starting, stopping and viewing time entries using the Toggl Track API
- Uses the Cobra library 🗹 to implement a CLI along with a teriminal form 🗹 for user input

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
- Demonstrated **proficiency** in Linux processes, effectively **forking** multiple processes and facilitating communication between them using pipes

Blog Aggregator 🗹 | Go, postgres

- Developed a $\mathbf{RestfulAPI}$ for an RSS Aggregator Application
- 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 **scraper** which works in the background to fetch any new feed entries for all blog in the database which runs periodically (runs in a separate **goroutine**)

Wordy: A Wordle Solver 2 | Python, Information Theory

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

TECHNICAL SKILLS

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

Technologies: Git, MakeFile, Linux, Protocol Buffers, Neovim (config **Z**)

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 🖸