Bhavik Sachdev

8319336255 | b.sachdev1904@gmail.com | bhavik22100@iiitnr.edu.in | linkedin.com/in/bsach64 | github.com/bsach64

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 – Aug 2024
- CRIU (Checkpoint/Restore in Userspace) allows you to stop a running application, save its state to disk and restart it using that data.
- Worked on adding support for pidfd file descriptors in CRIU (Work Report ☑)
- Improved CRIU's ZDTM test suite by differentiating between dump failures and dump crashes ☑

Minor contributions to **sympy**: A python library for symbolic math ☑

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. Demonstrates proficiency in Linux processes.

Blog Aggregator ☑ | *Go, postgres*
- Developed a **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 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), JavaScript
Technologies: Git, MakeFile, Linux, 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 ☑