

# SYNCLAIR SAMSON

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Synclair Samson

Synclair1

## EDUCATION

Habib University

BSc Honors - Computer Science

Exp 2025

Karachi, Pakistan

## COURSEWORK / SKILLS

- |                                |                                     |                       |                                 |
|--------------------------------|-------------------------------------|-----------------------|---------------------------------|
| • Data Structures & Algorithms | Intelligence                        | • OOP Concepts        | • Computational Social Sciences |
| • Operating Systems            | • Database Management System (DBMS) | • Web Development     | • Compiler Development          |
| • Computational                | • Artificial Intelligence           | • Android Development |                                 |

## PROJECTS

**InterKnow: Chat and Voice based AI assistant** | Machine Learning, Mobile Development - MERN stack

- Uses both English and Urdu for the Pakistani demographic (specifically the elderly).
- UI built with research on specifically what the elderly require and prefer for an easy to use app.
- Trained on a self made and internet gathered dataset for responses and for the project demonstration limited tasks were implemented.

**Evolving user-desired patterns in Conway's Game of Life** | MERN stack

2025

- The algorithm can be used to model the evolution of species and ecological communities.
- It uses the fundamentals and self researched patterns to implement the EA to form self replicating patterns in Conways Game of Life.

**Analysis of packet filtering of skip lists vs splay trees** | Python Based Web Project

2023

- The project involved implementing and comparing packet filtering performance using two advanced data structures
- A front-end was developed to visually display the results of the packet filtering tests, providing a clear comparison of the performance of both data structures through interactive graph analysis.
- This project involved developing our own methods of implementing the data structures, then comparing various methods such as their efficiency like time, complexity etcetera in final report paper for the project report.

## Previous Experience

**IBEX**

02 2024 – 11 2024

Patient Recruitment Specialist

Karachi, Pakistan

- Recruiting patients for vaccination drives for companies like Pfizer, Moderna etc.
- Managed time and quota based requirements to gather patients for the drive.
- Conducted qualitative interviews to assess patient medical health, history and criterion for the vaccination.

## TECHNICAL SKILLS

**Languages:** Python, Java, C, C++, JavaScript, SQL, NoSQL, Kotlin, Typescript

**Developer Tools:** VS Code, Android Studio, MongoDB, MySQL, Docker, Flask

**Technologies/Frameworks:** GitHub, ReactJS, NextJS, NodeJS, ExpressJS, Git, Mongo, Flutter

## EXTRACURRICULAR

**Habib University Debye Union**

2023

Director of Security for HUMUN 2023

Karachi