

# Siddhesh Agarwal *Software Developer*

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## 🎓 Education

**Sri Krishna College of Engineering and Technology, B.E. CSE** ✍ Nov 2021 – May 2025  
Enrolled in a 4-year (8-semester) **Computer Science and Engineering** course. Coimbatore, India

**Padma Seshadri Bala Bhavan Sr. Sec. School, 12th std.** ✍ Aug 2006 – Jun 2021  
Studied in PSBB, KK Nagar, Chennai from Pre KG to Grade 12 (CBSE). Chennai, India

## 👛 Professional Experience

**Full Stack Developer, SKCET** ✍ Apr 2023 – Feb 2024  
Coimbatore

- The functionalities include a **Lab Inventory Management System**, and **student attendance** by scanning their ID Cards and assigning them systems. The Admin side consists of a **Bill Management System** and **PDF Report generation**.
- The core functionality was written in **PHP** and **Laravel** while the admin-side features were done using **Python** and **Streamlit**.
- Deployed in 11 Computer Labs at SKCET, Coimbatore.

**Contributor, GirlsScript** May 2023 – Aug 2023  
Remote

- Selected as a Contributor in **GirlsScript Summer of Code** (GSSoC) 2023.
- Contributed to 3 Projects by solving bugs and creating Pull Requests. The projects required knowledge of Python, React and TypeScript.

**Contributor, Social (Formally Script Foundation)** Jan 2023 – Mar 2023  
Remote

- Contributed to four projects as a part of **Social Winter of Code** (SWoC) Season 3.
- Solved bugs and created pull requests in four projects that required knowledge in **Python, JavaScript, HTML** and **CSS**.

## 🧠 Skills

### Programming Languages

Python, JavaScript, TypeScript, C, C++, PHP

### ML/NLP/Gen AI

NumPy, Pandas, TensorFlow, XGBoost, HuggingFace, Transformers, LangChain

### Frontend Development

React.js, Next 13/14, TailwindCSS, Shadcn-UI, HTML 5, CSS 3

### Backend Development

Django, FastAPI, Flask, Laravel, Express.js, Node.js

### DataBase Management

MySQL, PostgreSQL, MongoDB, Redis

### Tools

Git, GitHub Actions, Bash, Powershell, Neovim, Linux, Docker

## 📁 Projects

**Newsful, An LLM Pipeline deployed as a browser extension to detect fake news** ✍

- A Project for the **Kavach 2023 Cyber Security Hackathon**. This project utilizes the **OpenAI API** and connects it to the internet using the **LangChain** Framework. Then using **NLP**, the **keywords are extracted** from a sentence and **cross-referenced with verified fact-checking sites** to determine the accuracy of a given input.
- Used **Python, FastAPI, LangChain**, and MongoDB for the Backend and HTML, **JavaScript** and **Bootstrap** for the browser extension.

**ChainHive, A Suply Chain Management System** ✍

- Created a **full-stack web application** for supply chain management that used a regression model to **forecast demand** based on previous trends and blockchain to **store payment records** for transparent audits.
- Used JavaScript, **React** and **TailwindCSS** for the frontend, Python, **FastAPI** for the Backend, SQLite for the Database, **XGBoost** for the regression along with Hardhat, and Solidity for the Blockchain.

**ChatSKCET, A RAG Chatbot for SKCET** ✍

- A Retrieval Augmented Generation (RAG) Model based on the data scrapped from the SKCET website ✍ and deployed on a kiosk in the SKCET admin office.
- Used Python, **FastAPI, LangChain**, and ChromaDB for Backend and **Next.js, TypeScript** and TailwindCSS for Frontend.

### Diagnose.AI, Web Application for Skin Cancer Detection [↗](#)

- A web-based Application for **Skin Cancer detection** that uses a **Convolutional Neural Network** for the classification.
- Used **TensorFlow** for the CNN model and **Streamlit** for User Interface

### IP Database, A Python app to get information about an IP address [↗](#)

- It is an IP and domain database that searches and retrieves IP-Domain pairs for identification purposes.
- Made using **Streamlit** and **MongoDB**. Deployed on **Streamlit Cloud**.

### Cryptmoji, A simple emoji-based encryption-decryption library. [↗](#)

Helps encrypt text to emojis and decrypt it back again without any added dependencies. Uses bitwise xor behind the hood for cryptography.

### Matmath, A simple and efficient module for matrix and vector manipulation [↗](#)

- A Python library to **handle matrices and vectors** natively in Python. The Matrix and vector classes come with support for almost all different operations.
- The library has amassed over 20K+ downloads on PyPI

### Sierra, A Pythonic way for JS DOM [↗](#)

A Python library to **write HTML and CSS in pure Python** in a simple yet elegant manner.

### Pomofocus Clone, A fully functional clone of the famous pomodoro app - Pomofocus [↗](#)

- A lightweight clone of Pomofocus deployed on Vercel.
- Built using Vite, React, JavaScript and SASS.

## Certificates

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[Kaggle \[↗\]\(#\)](#)[FreeCodeCamp \[↗\]\(#\)](#)[Coursera \[↗\]\(#\)](#)[HackerRank \[↗\]\(#\)](#)

## Awards

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### Kavach Hackathon, Ministry of Home and AICTE

Aug 2023

Won the Grand Finale of the Kavach 2023 Cybersecurity hackathon conducted by the Ministry of Home Affairs, AICTE and I4C. Made an LLM Pipeline deployed as a browser extension to **detect fake news**.

### Overall Best Hack, PoweringSTEM

Jan 2023

Won the overall best hack for Diagnose.AI in the PoweringSTEMHacks hackathon along with a cash prize of \$200.

### Runner Up, I4C and Binance

Aug 2022

Won the 2nd place in the Problem Statement "*Blockchain for Land Deeds*" in the Ideathon conducted by Binance and I4C.

### 2nd Runner Up, KIET, Gaziabad

May 2022

Won the 2nd Runner-up prize along with a coach prize of ₹15,000 in the Innohacks 1.0 hackathon conducted by the Innogeeks club of KIET, Ghaziabad.

## Languages

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• English

• Hindi

• Tamil