

# SAI SUNNY AASHLESH TOGARUCHEETI

[sunnyashlesh26@gmail.com](mailto:sunnyashlesh26@gmail.com) | (716) 256-5073 | [LinkedIn](#) | [saisunny@buffalo.edu](mailto:saisunny@buffalo.edu)

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## EDUCATION

**Master Of Science** - Computer Science and Engineering - University at Buffalo Aug 2023 – Dec 2024

**CGPA:** 3.6/4.0

**Coursework:** Analysis Of Algorithms, Machine Learning, Data Intensive Computing, Modern Networking Concepts, Operating Systems, Computer Architecture, Technological Entrepreneurship.

**Bachelor of Technology** Electronics & Communication Engineering, Sathyabama University, Chennai Jul 2017- May 2021

**CGPA:** 8.62/10

**Coursework:** C Programming, Object Oriented Programming, Computer Architecture, Operating Systems, Big Data.

## SKILLS & CERTIFICATIONS

**Programming:** Java, Python, JavaScript, HTML5, CSS.

**Web Technologies:** ReactJS, Rest API's, Tailwind CSS, Stripe.

**Databases & Cloud:** MySQL, Supabase, MongoDB.

**Tools & Frameworks:** GIT, Figma, Playwright, Azure DevOps, Postman.

**Certifications:** Introduction to Big Data, Python Programming, Machine Learning, Data Acquisition and IOT, Leadership skills,

**Cloud certifications:** Microsoft Azure Certified Data Scientist Associate (DP-100), OCI Certified Gen Ai Professional, OCI Certified Ai Foundations Associate.

**Cloud:** AWS, Azure, OCI.

**AI Tools:** Langchain, AstraDB, Langsmith, Redis (Upstash), Gemini AI.

**Others:** Data Structure & Algorithms, Machine Learning, Hadoop, PySpark, System Design.

**Professional:** Strong Organization and Communication Skills, Creative Thinker, Flexible, Adaptable, Problem Solving.

## WORK EXPERIENCE

### Research Student- OneDataShare

**Front End Developer** [JS, HTML, CSS, ReactJS, MUI]

Jan 2024 – May 2024

- Worked on the Design System of OneDataShare by providing front-end support to their website.
- Handled different Material UI components in developing the website.
- Explored many other features in React and integrated new enhancements to the components.

### Caterpillar India PVT LTD

**Software Engineer** [JS, HTML, CSS, ReactJS, Playwright,]

Sept 2022 – Jul 2023

- Worked on the Design system of Caterpillar by providing front-end support to their different websites and web applications by developing the web components required.
- Coded automation scripts for 25+ fully developed components by using the playwright automation tool in Typescript/Javascript.
- Experienced more stuff regarding UI/UX development like the designing of Figma.

### Cognizant Technology Solutions

**Trainee Intern & Software Engineer** [SQL, JAVA, Jenkins, Test NG]

Feb 2021 – Sept 2022

- Executed the code to develop web automation that helps in automating the websites between certain Scenarios and application to behave accordingly.
- Validated daily in the field of Quality assurance and engineering for CVS pharmacy to provide the quality of their data.
- Designed and developed Test Cases, Test Scenarios, and Test Design for the website of CVS to track their client's insurance updates.
- Operated on their databases by creating a database and updating the data using SQL commands.
- Monitored the team as a group representative to complete the project successfully.

## ACADEMIC PROJECTS

### Pint OS Implementation [C, Operating Systems]

- Implemented key components of a priority thread scheduler and system call handler in Pintos OS.
- Enhanced the thread scheduling mechanism by incorporating priority scheduling, alarm handling, and multi-level feedback queue scheduling (MLFQS), ensuring efficient CPU utilization.
- Developed and tested system call functionality, including argument passing and handling exit/write operations, demonstrating strong problem-solving skills and proficiency in low-level programming.

### Text Chat Application Development [C++, Socket, Networking Concepts]

- Designed and implemented the client and server components of a TCP-based text chat application as part of a modern networking concepts course.
- The project involved socket programming using C/C++, handling multiple socket connections via the select() system call without multi-threading, and ensuring compatibility with dedicated hosts provided by the course.
- The application supports user login, message broadcasting, and private messaging, with all communications relayed through a central server.

- Additionally, implemented command-line interface functionality to display client lists, IP addresses, and handle user commands effectively.
- The project was divided into two stages, focusing initially on basic login functionality and later on advanced features such as message buffering for offline clients, client blocking/unblocking, and detailed statistics tracking.

### **Design and Implementation of an 8-bit Processor[Verilog, C, Computer Architecture]**

- Collaborated in a team to design, simulate, and implement a single-cycle, non-pipelined 8-bit processor using Verilog and Xilinx Vivado.
- Developed key components including the ALU, instruction memory, data memory, register file, control units, multiplexers, and program counter.
- Conducted comprehensive software simulations to verify the processor's functionality, and successfully synthesized and programmed the design onto a Xilinx Basys 3 FPGA board.
- Demonstrated proficiency in hardware description languages and FPGA-based design, culminating in a live hardware demonstration and in-depth technical interview to validate the project outcomes.

### **CHICAGO CRIME ANALYSIS [Python, Stream Lit, Machine Learning, MongoDB]**

Project GitHub Link: [Chicago-Crime-Analysis](#)

- Choose a real time crime dataset and done the needful data cleaning and data analysis to make the dataset clean.
- Applied different machine learning algorithms using different random sampling methods to check the better accuracy.
- Using stream lit, developed a front-end application to replicate the steps like viewing the data, applying different algorithms, and sampling methods, getting the predicted values, and checking the accuracy.
- So, here we have developed a problem statement as the starting point and using python, feature importance, data processing, and machine learning (algorithms) we have predicted labels with better accuracies. This will help the police department to overcome certain issues, and a few possible measures have been implemented as well.

## **PERSONAL PROJECTS**

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### **Beat Box Application [Next.js, React, Tailwind, Supabase, Stripe]**

Project GitHub Link: [Beat-Box](#)

- Developed a full-stack music application using Next.js 13.4, React, and Tailwind CSS, with Supabase for authentication and PostgreSQL for database management.
- Integrated Stripe for premium subscriptions, implemented advanced audio playback, playlist and favorites systems, and handled secure file uploads and real-time data synchronization.
- Incorporated react-hook-form for client-side form validation and enhancing application stability and user interaction. Developed route handlers for POST operations, directly accessing the database from server components without the need for API calls.

## **LEADERSHIP SKILLS**

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### **Rotaract Club of Sathyabama, Sathyabama University, Chennai**

#### **General Secretary**

Aug 2020 – Jun 2021

- Contributed to conduct, organize, and participate in many activities for four different categories of Rotaract Club.

#### **Professional Service Director**

Aug 2019 – Jun 2020

- Streamlined as a speaker, leader, motivator, and influencer to help every individual in our club to grow professionally and personally.