

# Sanjay Sugumar

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## EDUCATION

**Texas A&M University, College Station, TX**

*Bachelor of Science in Computer Science, Minor in Business*

August 2021 – May 2025

GPA: 3.47

## EXPERIENCE

**Environmental Impact and Data Models Research**

*Texas A&M STEM Research*

February 2024 – Present

*College Station, TX*

- Collaborated with a team of researchers at TAMU to develop insights into residential energy consumption and environmental sustainability.
- Utilized Python, SQL, and worked with Parquet files to analyze temperature data from multiple houses.
- Implemented K-Means and DBSCAN Clustering algorithms to identify patterns in temperature variations.
- Used Matplotlib and Pandas in Python to analyze and visualize temperature data from various houses, enhancing environmental impact insights.

**Data Analyst Intern**

*Newpark Resources*

May 2023 – Present

*Katy, TX*

- Developed Microsoft Power BI reports for enhanced hardware and software asset management.
- Automated a notification system using Power Automate to alert IT owners of approaching software contract renewal dates, leading to significant cost savings.
- Utilized SQL to query and merge data from multiple databases, facilitating data-driven decision-making.
- Restructured database schema and table relationships based on industry-standard data modeling practices.
- Redesigned employee data entry process, streamlining user interfaces, eliminating unnecessary fields, and creating tutorials, resulting in improved asset documentation and reduced errors.

## PROJECTS

**Point of Sale System** | *ReactJs, NodeJs, Java, Git, PostgreSQL, Python*

September 2023 – December 2023

- Led weekly Scrum meetings as Scrum Master, ensuring Agile methodology adherence for developing a coffee shop Point of Sale system, capable of taking orders, inventory management, and displaying sales analytics.
- Designed and implemented a PostgreSQL database for storing sales, inventory, and employee data.
- Streamlined testing with Python scripts generating simulated sales data for comprehensive database evaluation.
- Developed a user-friendly interface with ReactJS and a robust backend API with Node.js for seamless communication between frontend and database.

**Personal Website** | *JavaScript, HTML/CSS*

September 2023 – October 2023

- Created a fully functional website from scratch, utilizing HTML, CSS, and JavaScript to ensure a dynamic and visually appealing user interface.
- Implemented a toggle button functionality that allows users to seamlessly switch between different designs by switching between CSS files.
- Effectively presented my skills and capabilities, demonstrating a strong grasp of diverse subject areas and a keen interest in continued learning and development.

**PPM File Resizer** | *C++*

September 2022 – October 2022

- Implemented a robust PPM file compressor using the seam carving technique in C++, effectively reducing image size while preserving essential features.
- Demonstrated proficiency in algorithm design and implementation, optimizing the compression process for efficient and seamless file manipulation.
- Successfully handled large image files, showcasing the ability to manage memory efficiently and ensure the scalability and performance of the compression algorithm.

## TECHNICAL SKILLS

**Languages:** Java, Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS, Linux, R, Matplotlib

**Developer Tools:** ReactJs, NodeJs, Git, Google Cloud Platform, Visual Studio, Microsoft PowerBI

**Relevant Coursework:** Introduction to Computer Systems, Foundations of Software Engineering, Data Structures and Algorithms, Computer Organization, Communication for Technical Professions, Principles of Statistics, Design and Analysis of Algorithms