



# SWAMY SAXENA

Roll No.: 420241

B.Tech

Computer Science And Engineering

National Institute Of Technology, Andhra Pradesh

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GitHub Profile

LinkedIn Profile

## EDUCATION

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|--|-------------------------|
| <b>•NATIONAL INSTITUTE OF TECHNOLOGY (NIT), ANDHRA PRADESH</b> | 2024                    |
| B.TECH COMPUTER SCIENCE AND ENGINEERING                        | CGPA/Percentage: 8.57   |
| <b>•SUNBEAM SCHOOL LAHARTARA</b>                               | 2020                    |
| CBSE, 12TH - HIGHER SECONDARY                                  | CGPA/Percentage: 95.60% |
| <b>•SUNBEAM SCHOOL LAHARTARA</b>                               | 2018                    |
| CBSE, 10TH - SECONDARY   | CGPA/Percentage: 95.60% |

## WORK EXPERIENCE

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|---|---------------|
| <b>•Zscaler</b>   | Feb-Aug, 2024 |
| Software Developer Intern (Data and AI Team)  | Bengaluru     |
| <ul style="list-style-type: none"><li>– Worked on the Risk360 product of Zscaler, Part of the Data and AI Team.</li><li>– Developed and managed ETL workflows using Apache Airflow, ensuring data was processed accurately and on schedule. Created email alerts for notifying team members in case of failures.</li><li>– Wrote and optimized SQL queries to enhance data extraction and transformation processes, resulting in faster query performance. Rewrote queries leading to more than 29% performance increase.</li><li>– Assisted senior team members in database migration by contributing to the planning, execution, and testing phases of the project resulting in query time reduction by 17%.</li><li>– Resolved numerous bugs and issues, collaborated with cross-functional teams to understand data requirements and documented processes and workflows related to the product</li><li>– Skills Used : Python, SQL, Spark, Hive, HDFS, Docker, Linux, Bash, Pandas, Snowflake, Azure, Internal Libraries, Data Modeling, Data Pipelining, Data Warehousing.</li></ul> |               |

## PROJECTS

- Surgical Workflow Analysis Using Temporal Convolution Networks**  
<https://github.com/SwamySaxena/Surgical-Workflow-Analysis>
  - \* In this project, surgical workflow analysis was done on Cholec80 dataset.
  - \* A pipeline consisting of Resnet50 model followed by a TCN model was used. Inverted dilated convolutions were added to a standard causal TCN model to achieve similar performance with less resource utilization.
  - \* Usage of attention was also explored. However, that did not yield desired outcome boost.
  - \* Skills : Python, Pytorch, Machine Learning, Action Segmentation, Phase Detection, Computer Vision, Research, Collaboration, Communication, Mentorship.
- MedEye - Diabetic Retinopathy Detection**  
<https://med-cnn-frontend.vercel.app/>
  - \* Created a Diabetic Retinopathy Detection model. Users have to upload images of their retina to get results.
  - \* Finetuned a EfficientNet-B0 model on APTOS dataset from Kaggle.
  - \* Skills : React, Javascript, HTML, CSS, Python, Pytorch, Computer Vision.
- WellnessAI - Mental Health Chatbot**  
<https://llm-mental-frontend.vercel.app/>
  - \* LLM powered mental health diagnostic chatbot.
  - \* The project uses a finetune BART model finetuned on IMHI dataset.
  - \* Skills : React, Javascript, HTML, CSS, Python, Pytorch, NLP, LLM.
- LangMan - Visual Hangman**  
<https://github.com/SwamySaxena/LangMan>
  - \* An end to end hangman game with stunning visuals, account creation, testing etc.
  - \* In this project, the frontend is made using React and Flask is used for backend. The project is supported by Postgresql.
  - \* Skills : Python, React, Javascript, Flask, SQLite, PostgreSQL, Unit testing, Debugging.

## TECHNICAL SKILLS AND INTERESTS

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**Languages:** C, C++, Java, Python, SQL, PL-SQL, Shell Scripting

**Frameworks:** Tensorflow, Pytorch, Pandas, Numpy, Spark, Airflow

**Cloud/Databases/Tools/OS:** MYSQL, Hive, Hadoop, GIT, CI/CD, MacOS, Windows, Linux

**Soft Skills:** Communication, Collaboration, Problem-Solving, Continuous Learning, Time Management, Adaptability, Attention to Detail, Mentorship.

**Coursework:** Data Structures, Algorithms, Operating Systems, Database Management Systems, Computer Networks, Big Data Engineering, Applied Machine Learning, Artificial Intelligence, Web Development(REST APIs).

**Areas of Interest:** Research, Software Development, Software Engineering, Finance, Data Engineering, Data Analysis, Maths/Geometry.

## CERTIFICATIONS

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**Machine Learning Specialization** - DeepLearning.AI, Coursera

**React Basics** - Meta, Coursera

**Object Oriented Analysis And Design (Top 1% - All India Exam Topper)** - IIT Kharagpur, NPTEL

**Database Design Fundamentals For Software Engineers** - Educative

## HACKATHONS AND VIRTUAL INTERNSHIPS

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–**Flipkart Grid 5.0** Qualified Round 1

–**Walmart Advanced Software Engineering Virtual Experience Program** - Forage

## SCHOLASTIC ACHIEVEMENTS

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–**Exceptional Thesis Work** Secured exceptional grade for pre-final year thesis work

–**Object Oriented Analysis and Design - MOOCS** Secured All India Rank 1

–**Intra College Coding Contest** Ranked 1/500+ students of my college in a coding competition  
- 2nd Year

–**JEE ADVANCED** Secured AIR - 9343

- Out of 150K Students who qualified JEE MAINS

–**JEE MAINS** Secured AIR - 17398

- Out Of 900K Students (Top 1.5%)

–**UPSEE** Secured AIR - 7

–**Qualified Pre-RMO** 2018

## EXTRA CURRICULARS

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–**Volunteer - Zscaler** Volunteered for Various drives such as Plantation drive, Pride fest, Heartfulness drive  
- As an employee at Zscaler.

–**Volunteer - Vulcanzy** Volunteered for various positions (Organization team, Technical team)  
- Vulcanzy, College Cultural Fest of NIT AP.

–**Student Mentor - NIT AP** Provided mentorship to 3 freshman year students to navigate coursework.  
- Helped them get adjusted to college life.

–**Volunteer - Teacher** Conducted Subject classes for under privileged kids of Barthara Village  
- Part of School Team for Helping the Needy.

–**SCHOOL QUIZ LEAGUE** Won School Quiz League(2016), An all India quiz contest.  
- Appeared on National Television Channel Z-Business.