SIDDHARTH SAINI

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Academic Details

Year	Degree	Institute	CGPA/%
2023	Bachelors of Technology (Computer Science & Engineering)	Indian Institute Of Information Technology, Raichur *Mentored by IIT Hyderabad*	9
2018	XII (CBSE)	S. D. Vidya Mandir, Panipat, Haryana	95.4%
2016	X (CBSE)	S. D. Vidya Mandir, Panipat, Haryana	10

Work Experience

- **Machine Learning Intern** at **CKM VIGIL Pvt. Ltd.**   **[May 2021 - Present]**
  - Researched and improved upon the **state-of-the-art** Object Detection Model - **EfficientDet** for the Semiconductor Wafer Defect Detection Problem with **mAP@0.5 : 0.834** on the dataset containing 38k mixed type defects for commercial large scale deployment.
  - Added **Dilation** to the **BiFPN** Feature Network to improve the performance and introduced **Wafer-Net Architecture**.
  - Used **INT8 Quantization** and reduced the model size to **¼ times** allowing wide hardware support with high efficiency.
  - Worked with the team to implement other state-of-the-art Semantic Segmentation models - YOLOv5, UNet.
  - Working on the publication for the above research work and proposed architectures.

Projects

- **Flutter App: Locating Nearby Healthcare Centres (Sup: Dr. M V Panduranga, Associate Professor, CSE, IIT Hyderabad) [Sep'20]**
  - Developed a flutter app which allows a user to locate nearby healthcare and wellness centres, which are opened under the Aayushmaan Bharat Yojna, India.
  - Tools: **Flutter**, **Dart** and **Google Maps API**.
- **Designing Programming Language : DevaN (Sup: Dr. Ramakrishna Upadrasta, Asst. Professor, CSE, IIT Hyderabad)   [Oct'20]**
  - Designed a first-of-its-kind programming language from scratch which is implemented in Hindi script
  - The language is based on the imperative paradigm which includes both procedural and OOP. - GitHub Link
- **Warehouse Management System (Sup: Dr. M V Panduranga, Associate Professor, CSE, IIT Hyderabad)   [Nov'20]**
  - **JAVA** project to manage a huge quantity of stocks and products and keeping a record of all the products with their cost, stock, and transactions along with the records of all the Customers, Suppliers etc.
  - Build the database using **MySQL** on a local host server. - GitHub Link

Skills

- **Languages:** C, C++, Python, SQL
- **Tools:** Git, LaTeX, LINUX
- **Frameworks & Libraries:** Tensorflow, PyTorch, Turicreate, Matplotlib, Pandas, Numpy, OpenCV
- **Creative Tools:** Final Cut Pro, Adobe Premiere Pro, Adobe After Effects, Adobe Photoshop

Relevant Courses

- **Data Science:** Introduction to AI and ML, Machine Learning - Regression, Classification, Clustering, Recommender Systems, Deep Learning & Neural Networks - Certificate Link
- **Computer Science:** Data Structures, Algorithms, Computer Architecture, Operating Systems, Database Management System, Theory Of Computation, Complexity Theory, Principles Of Programming Languages (Basics)

Positions Of Responsibility

- **Multimedia Coordinator :** Elan & nVision, Annual Techno - Cultural Fest, IIT Hyderabad   **[Oct'20 - Present]**
- **Design Manager :** E-Cell, IIT Hyderabad   **[Sep'20 - May'21]**
- **General Secretary (Elected) :** Students' Gymkhana, IIIT Raichur   **[Jul'20 - May'21]**
- **Head Boy (Elected) :** Students' Council, S. D. Vidya Mandir   **[2017 - 2018]**

Scholastic Achievements

- **2nd Prize** for **"State-of-the-art Multi-class Wafer Defect Detection & Segmentation in Semiconductor   [July 2021]** **Manufacturing" -** Innovation in Manufacturing Processes 2021 by INAE & NatFoE 2021
- **Best Performer in Academics,** CSE Department, IIIT Raichur   **[2019 - 2020]**
- Ranked in **Top 2%** among 1.2 Million Students in Joint Entrance Examination   **[2019]**