

PRATIK RAVIKUMAR SANGHAVI

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EDUCATION

BITS Pilani, K.K. Birla Goa Campus, Goa, India

Secured Bachelor of Engineering in Electronics and Communication with *Distinction*

August 2021

(CGPA: 9.05/10)

PROFESSIONAL EXPERIENCE

Quantiphi Analytics Solution Pvt. Ltd, Mumbai, India

September 2021 - Present

Machine Learning Engineer -CONA Picksmart

- Implementing computer vision solutions to reduce mispicks in warehouses by identifying and tracking Stock Keeping Units (SKUs) placed on a pallet jack
- Optimized the tagging pipeline to reduce tagging effort by 80% by developing a code pipeline that prioritizes data to be tagged based on information entropy, current confidence for an SKU, and threshold for data collection.
- Experimented with numerous detection and classification models such as Yolo variants, squeeze net variants, ResNet flavours and EfficientNet variants before selecting one based on precision and latency.
- Improved robustness of the tracking algorithm and enhanced it for better performance by implementing various custom logic modules to handle the effect of anomalies in the picking process.

VKS Computer Services, Mumbai, India

July 2020 - December 2020

Data Science Intern

- Scraped and cleaned data off a Chinese OTT platform and augmented it with data from IMDB to make the data suitable for further processing.
- Designed the database for a language institute also offering in-house placements.
- Leveraged a transformer-based model for inferring the contexts of emails to assist a career counselling service to automate their workflows.

Apple India Pvt. Ltd, Bengaluru, India

January 2021 - July 2021

Control Plane Developer Intern - Wireless Technologies and Ecosystems

- Implemented scenarios to ensure data continuity in handover and redirection cases between the LTE and NR RATs in the various modes of connectivity.
- Identified and fixed several bugs as part of the project by examination of the logs generated as a result of running the code with changes over the test cases.

ACADEMIC PROJECTS

Verilog implementation of a rudimentary pipelined processor

- Designed and simulated 4 stages (doesn't sound right no?) pipelined processor to execute a subset of the RISC-V ISA on Verilog and synthesized a functional model on Quartus Prime.
- Implemented datapath including control unit, instruction memory, register file and ALU using Verilog from scratch and successfully simulated on ModelSim.

Haze Removal from Images

- Incorporated MATLAB code for "A Fast Single Image Haze Removal Algorithm Using Color Attenuation Prior."-an existing paper on haze removal.
- Constructed depth map, estimation of atmospheric light and scattering index using empirical and machine learning models in order to implement the dehazing algorithm detailed in the paper.

RAM tester

- Developed a RAM tester to check the functionality of a given RAM module by storing bits into and retrieving bits from all locations on the module. Employed Intel 8086 and used x86 assembly language to code the microprocessor.

TECHNICAL SKILLS –

- Programming: C, C++, Python, HTML, CSS, JavaScript, Unix Shell Programming, Verilog, x86 Assembly, MATLAB
- Software Packages and Frameworks: TensorFlow, Pytorch, Flask, Django, Javascript, Materialize, Pandas, Numpy, MySQL, Cadence Virtuoso, Arduino IDE, AutoCAD, CST Studio Suite, Quartus Prime

EXTRA CURRICULAR ACTIVITIES

- Obtained certifications such as AWS Solutions Architect, SnowPro Core, Nvidia Fundamentals of Accelerated Computing with CUDA C/C++ and TensorFlow Developer in 2021-2022. From where and when(AWS, Google, Nvidia, Snowflake themselves offer these certifications)?
- Headed the brainstorming sessions for finalizing ideas for festivals at BITS Goa, created the induction video and oversaw the progress of the department in varied projects as the 'Creative Head' of the Department of Arts and Deco from 2019-2020.
- Achieved second place in a Network Management in 2019 organized at BITS Goa.