Pratik Sanghavi

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EDUCATION

University of Wisconsin-Madison August 2023 - Present
Masters of Science in Computer Science *Madison, WI*
- Relevant Courses: Database Management Systems, Operating Systems, Artificial Intelligence

BITS Pilani August 2017 - July 2021
Bachelor of Engineering in Electronics and Communications, Minors in Finance *Goa, India*
- CGPA: 9.05/10
- Relevant Courses: Computer Architecture, Computer Networks, Digital Signal Processing, Image Processing

PROFESSIONAL EXPERIENCE

Quantiphi Analytics Pvt. Ltd. September 2021 - March 2023
Machine Learning Engineer *Mumbai, India*
- Led a team of 8 ML Engineers to implement a computer vision solution to reduce mispicks in warehouses by identifying and tracking Stock Keeping Units (SKUs) placed on a pallet jack.
  - ∗ Responsible for communication with client on data collection, model training and SKU coverage
  - ∗ Optimized tagging pipeline to slash tagging effort by 80% by integrating prioritization logic.
  - ∗ Experimented with 20+ detection and classification models selecting for precision and latency.
  - ∗ Improved robustness of tracking algorithm to anomalies leading to 12% rise in accuracy and $\leq$ 15ms latency
- Improved predictor module of an order recommendation engine driving up prediction accuracy by 5% and decreasing training time by 60%.
- Prepared initial product proposal for a supply planning solution for warehouses.

Apple (India) January 2021 - July 2021
Control Plane Developer Intern *Bengaluru, India*
- Incorporated scenarios to ensure data continuity in handover and redirection between the LTE and NR RATs in various modes of connectivity and fixed 8 bugs bolstering system reliability.

BITS Pilani, KK Birla Goa Campus September 2020 - December 2020
Teaching Assistant-Communication Systems *Goa, India*
- Supervised doubt and lab sessions for 80+ students over the course of the semester
- Prepared lab demonstration videos illustrating the use of Simulink for experiments in the course.

PROJECTS

Student Management Portal April 2023 - June 2023
- Designed and developed a full-stack (SIO) application for managing 300+ students for a music academy
- Effected features for turn and fee management, daily schedule and weekly fee reminders

Verilog implementation of a pipelined processor March 2020 - May 2020
- Designed and simulated a 4-stage pipelined processor to execute a subset of the RISC-V ISA on Verilog and synthesized a functional model on Quartus Prime.
- Modelled datapath including control unit, instruction memory, register file and ALU using Verilog and simulated on ModelSim improving throughput by 400% over a single cycle processor.

Haze Removal from Images October 2019 - November 2019
- Implemented MATLAB code for "A Fast Single Image Haze Removal Algorithm Using Color Attenuation Prior."-an existing paper on haze removal.
- Employed empirical equations and machine learning models replicating the algorithms's performance increase of 64% over state of art methods in 2019.

LEADERSHIP AND ACHIEVEMENTS

Mentor, Quantiphi Analytics Pvt Ltd January 2022 - October 2022
- Guided 20+ interns in learning and contributing to 10+ projects across healthcare and insurance verticals

Arts N Deco Creative Head, BITS Pilani May 2019 - April 2020
- Organised brainstorming sessions for 90+ students for iterating through ideas for artworks for college festivals and department activities as well as creating promotional videos and posters for new student inductions and events

SKILLS

Languages/Database: C, C++, Python, JavaScript, MATLAB, Verilog, HTML, CSS, MySQL, MongoDB, Firestore
Libraries and Frameworks: Tensorflow, PyTorch, OpenCV, Flask, Django, Node, React, Express, Pandas, NumPy
Software & Tools: Premiere Pro, AutoCAD, Clip Studio Paint, Quartus Prime, Cadence Virtuoso
Cloud: AWS, Azure, GCP, Snowflake