AGASTYA SETH

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EDUCATION

ARIZONA STATE UNIVERSITY (Tempe, AZ)
Masters of Science in Computer Science — Aug 2023

SHIV NADAR UNIVERSITY (UP, India) — GPA: 3.44/4.0
Bachelors of Technology in Electronics and Communication Engineering (Minor in Mathematics) — Aug 2016 - Jun 2020

STANFORD UNIVERSITY (Stanford, CA) — GPA: 4.13/4.3
Visiting Undergraduate Student | Data Science & Technology Entrepreneurship — Summer 2018

WORK EXPERIENCE

CADENCE DESIGN SYSTEMS — Noida, UP
Software Engineer II (R&D) — Jul 2020 – Jul 2023
As part of the R&D team, collaborated within a global cross-functional group driving innovation for the Quantus Parasitic Extraction Cell-level tool, used by industry leaders such as Apple, Qualcomm, and Intel, to accurately estimate RC-parasitics for digital designs.
- Managed core library enhancements & customer-related issues across preprocessing, IVMF Flow, 3DIC flow, & messaging.
- Led development of efficient graph theoretical, geometry processing, & pattern matching algorithms, including being a key contributor to 3DIC flow for inter-die crosstalk extraction, elevating tool performance and functionality over 10+ major projects and 100+ issues.
- Deployed Flex/Bison-based parser library for 3DIC Flow, and managed enhancements for Rccompare (SPEF/DSPF comparison) tool.
- **Stack:** C++, Python, Valgrind, Parasoft, ASAN, Perforce, GDB, Linux, Shell

LIQVID <> SHIV NADAR UNIVERSITY - NLP RESEARCH INITIATIVE ⌘ — Remote (Part-time)
Data Science Consultant — Aug 2020 – Sep 2021
- Orchestrated cutting-edge research alongside Prof. Rajeev Kumar (SNU) and LiqVid English Edge, resulting in an AES tool boasting an 82% kappa score across six essay sets, achieved through a novel application of transformer-based deep language models - using DistilBERT and an ensemble LSTM-model with three sequence models for enhanced explainability and refined fine-tuning.
- Our novel approach with near SOTA accuracy facilitated adoption by billion-dollar publishing companies & testing agencies like Wiley.
- **Stack:** Python, PyTorch, Keras, TensorFlow, AWS EC2, SageMaker

VISENZE — Singapore
Data Science Intern — Jan 2020 – Jul 2020
- Oversaw projects with extensive datasets and deployment (100s of datasets, 10+ projects), enhancing flagship products for billion-dollar brands like Sephora.
- Improved F1-scores for fashion-attributes models by 15-20% via augmented data, attention models, & hyperparameter tuning.
- Innovated perspective classification and group models, optimizing efficiency through unique pipelines and a T-SNE sufficiency-based image parsing algorithm, reducing model iteration turnaround time by 10x.
- **Stack:** Python, PyTorch, Keras, ONNX, JupyterLab, Docker, BS4, Selenium

KEY UNDERGRAD PROJECTS

Massive MIMO Channel Estimation using Deep Image Prior (Major Project) ⌘	2019
Schizophrenia Detection and Prevention through 3D-CNN on EEG and f-MRI Data (UG Research) 🔗	2019
SkiNet - Skin Segmentation and Melanoma Classification (Deep Learning Course Project) 🔗	2019
GreenCarbon - DLT-based Sustainability Platform for Product Lifecycles and Personalized Carbon Scores (Stanford SVIA) 🔗	2018
RNBIP - Single Bus Processor Architecture Synthesis (UG Research) ⌘	2017

ACHIEVEMENTS

Winner - Smart India Hackathon 2019: Addressed EV range-anxiety with Tata Motors (Asia's largest Hackathon, 300k participants) 🔗
Regional Finalist - Google Science Fair 2014: Crafted an Android app for real-time crop prices, empowering Indian farmers 🔗
Shiv Nadar University 70% Merit-Based Scholarship 🔗

ADDITIONAL

Papers/Publications: QueryLog: Querying Quantus Output files using LLMs, Quantus 3DIC Inter-die Extraction (IDX)
Technical Skills: C++, Python, MERN, SQL, MongoDB, R, MATLAB, Java, Kotlin, Verilog/VHDL, Linux, Shell, Ruby, Perl, VLSI CAD
Deep Learning: CNNs, RNNs, OpenCV, Autoencoders, GANs, LSTMs, BERT, Sequence Models, LLMs
Software: Jupyter, QtCreator, Valgrind, Sunstudio Collect, Android Studio, AWS, Perforce, Git, Docker, Kubernetes,
Certifications/Select Coursework: Deep Learning Specialization, Full-Stack Web Dev, Linear Algebra, Optimization, Game Theory
Communities/Activities: Core member at Roboyantriki (SNU Robotics), Working Committee at Snuphoria (SNU Music Society)