KEVIN SHAH

IIT Delhi, Graduating in May 2023

kevin2252238@gmail.com | cs1190365@iitd.ac.in | +919624037379 | Kevin-379

EXPERIENCE

Software Dev Intern **Uber** June-July, 2022 Bangalore
- Implemented a machine learning model to cross-sell products.
- Collected, processed and analysed data for feature engineering.
- Worked with SQL, Matplotlib, Pandas, Scikit Learn, and XGBoost.

Research Externship **IBM Research** May, 2021 Gurugram
- Worked on a neuro-symbolic AI for image manipulation.
- Compared with SOTA baselines on low data and zero shot expts.

Research Intern **Pengtao Xie** May-July, 2021 UCSD
- Learned about Generative Adversarial Networks (GANs), Neural Architecture Search (NAS), and Learning by Passing Tests (LPT).
- Implemented GANs on CIFAR10 with varying architectures.
- Implemented LPT using a GAN on CIFAR10 and Learning by Self Exploration on chest X-ray images of patients with pneumonia.

PROJECTS

Neuro-Symbolic Image Manipulation **Parag Singla** 2022
- Created a dataset CLEVR-MAN for image manipulation.
- Implemented our own Neuro-Symbolic model on CLEVR-MAN.
- Showed generalizability and interpretability of our model with zero shot out of distribution and low data experiments.

OS Kernel Shell **Sorav Bansal** January-April, 2022
- Implemented a shell with personalized UI using MMIO and PMIO.
- Implemented coroutines, fibers, preemption, SPSC queue.

Reading Embedded Captions **Parag Singla** November, 2021
- Implemented a CNN based encoder and RNN based decoder architecture to extract captions embedded in noisy images.

Grid World **Rohan Paul** November, 2021
- Implemented various RL algorithms, such as value iteratation, policy iteration, q-learning and sarsa, on a grid world. Compared on and off-policy algorithms with various hyperparameters.

Nurse Rostering System **Rohan Paul** October, 2021
- Implemented an optimized nurse rostering system as a CSP.

Maze Game **Rijurekha Sen** April-May, 2021
- Created a maze game in C++ using SDL2, sockets and pthreads.
- Implemented collision mechanics, multiplayer support over local network, bots, textures, animations, projectiles and collectibles.

MIPS assembly simulator **Preeti Panda** March-May, 2021
- Implemented a MIPS simulator to simulate MIPS32 assembly file on a multi-core cpu with DRAM with row column access latency.
- Added support for out-of-order and non-blocking execution.

Traffic Density Estimation **Rijurekha Sen** Feb-March, 2021
- Used OpenCV to estimate static and dynamic traffic density.
- Compared time versus accuracy trade off by lowering resolution, skipping frames, multi-threading, and using different algorithms such as optical flow, background subtraction, finding contours.

STRENGTHS

Hard-working | Problem solving | Technical skills | Inquisitive

TECHNICAL SKILLS

Machine Learning
- Proficient in Machine Learning algorithms (Linear and Logistic Regression, Decision Trees, SVM, GDA, and Naive Bayes).
- Proficient in Neural Networks (DNN, CNN).
- Proficient in Reinforcement Learning.

Web Development
- Experience in full stack web development using Django, Flask, MERN stack, SQLite, Bootstrap, PostgreSQL, and Apache.

Programming Languages & Libraries
- Proficient in Python, Rust, C, C++, JavaScript, Java, Haskell, Dart, and Julia.
- Proficient in Numpy, Pandas, Tensorflow, PyTorch, Scikit-Learn, Matplotlib, Scipy.

MOST PROUD OF

JEE (Advanced) and JEE (Main)
All India Rank 85 (Adv.) and 260 (Main)

Indian National Olympiad (INO)
Selected in OCSC for Chemistry and appeared in INPhO and INAO.

Indian National Mathematics Olympiad (INMO)
Appeared twice for INMO.

EDUCATION

B.Tech. in Computer Science and Engineering **Indian Institute of Technology, Delhi** July 2019 – June 2023 CGPA: 9.3

Higher Secondary Education **Pioneer Convent** 2017 – 2019 Marks: 94.8%

Secondary Education **Navrachana International School** 2015 – 2017 CGPA: 10.0