Jainam Shah

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EXPERIENCE

Beacon Platform, New York City, United States of America

Application Engineer, Associate | Python, React JS, TypeScript, Playwright, Docker   **Feb 2024 - Present**
- Uplift **Trading and Risk** Management Applications like Trade Blotter, Risk Workstation, etc.
- Improved Beacon's **Excel**-like **Worksheet** component with innovative new features.
- Enhanced the in-house **UI framework** (Glint) by exposing new components, adding features and resolving bugs**.**
- Led the development of **MVC web apps** with Glint and the **directed acyclic graph** model (**Gromit**) from **design to production**.
- **Automated** the **code review** creation with **git** which **reduced manual effort** by **99%**.
- Wrote comprehensive **unit and integration tests** with automatic execution for every new branch.
- Increased overall code **documentation coverage by 30%** by adding type hints and docstrings.

Application Engineer Intern   **May 2023 - Aug 2023**
- **Setup** the **automation testing** framework for react components, writing **30+ tests** and 5+ test apps, increasing the **test coverage by more than 25%**.

ConnectWise, Mumbai, India   **Jun 2021 - Aug 2021**

Software Development, Summer Intern | Go, ReactJS, Jenkins
- **Reduced** discrepancy detection **time by 50%** by building a tool that parses and compares different sources of employee data.
- Implemented a secure login system with **15-minute user sessions** using HttpOnly cookies.
- **Decreased** build **time by 90%** via deployment automation providing **Linux** and **Windows installers**, with **20s installation**.

Kidyfit Care, Mumbai, India   **Feb 2021 – Apr 2021**

Flutter Front End Development Intern | Flutter, Dart, Firebase
- Developed an app to purchase healthcare products which communicated with the server using **WebSockets** and **REST API**s.

K. J. Somaiya College of Engineering, Mumbai, India   **May 2020 - Jul 2020**

Research Intern
- **Daily infected count prediction system for Covid-19** | Springer Link, Apr 2021, DOI: 10.1007/s12065-021-00600-2
  Employed the SIR model on **140+ days** of India's COVID-19 data to predict daily infection counts with up to **99.82%** accuracy.
- **Diagnosis of COVID-19 using CT scan images** | Springer Link, Feb 2021, DOI: 10.1007/s10140-020-01886-y
  Executed transfer learning for VGG-16 and DenseNet-169 on **738 CT** images for COVID-19 detection and improved VGG-16's accuracy from 89% to **93.15%** via image augmentation and fine-tuning.

PROJECTS

Artificial Intelligence Player for a platformer game [LINK]
- Developed a platformer & an AI agent that learns to clear the level in **under 10 iterations** on average using a feedback loop.

Neural Network Landscape Profiling (under guidance of Prof. Yifan Sun) [LINK]
- Trained **ResNet** on MNIST(up-to **99%** accuracy) & **Vision Transformers** on CIFAR-10 (up-to **97.5%** accuracy).
- Developed a **Loss Surface Visualizer** for optimization algorithms using **Contour Plots & Random Directions**.

An Implementation of pix2pix (GAN) [LINK]
- Wrote the Generator(based on **U-Net**) and Discriminator for conditional **GAN** and trained it on CMP Facade Database.

Sharded Key/Value Service on top of a Replicated State Machine Protocol (RAFT) [Distributed Systems Lab]
- Implemented Raft as a C++ class and built a **fault-tolerant versioned key/value storage** service on top of it.
- Added support for **cross-shard transactions** with **optimistic concurrency control**.

Supply Chain Management for Agricultural Produce Market Committee using Blockchain [Capstone Project]
- Leveraged **Hyperledger Fabric** to build a consortium blockchain (Go + Javascript) for tracking agricultural produce.

EDUCATION

Stony Brook University, New York, United States of America | GPA: 3.8/4   **Dec 2023**

MS in Computer Science: Distributed Systems, Database Systems, Visualization, Data Science, HCI, Machine Learning, Computer Vision.

University of Mumbai, India | CGPI: 9.36/10   **Jun 2022**

B.Tech in Computer Engineering: Operating Systems, Advanced Algorithms, AI, ML, Soft Computing, MEAN Stack, Blockchain, Big Data.

TECHNICAL SKILLS

Python, C++, SQL, C, C#, Dart, Go-lang, Java, MySQL, PostgreSQL, MongoDB, Firebase, HTML, CSS, JavaScript, React.js, Redux, TypeScript, Flask, Node.js, Android (Flutter), Playwright, Unity 3D, Git/GitHub, Pytorch, MATLAB, Linux, Pandas, Blender.

EXTRACURRICULAR ACTIVITIES

- Created an **Ethereum** based (**ERC-20**) crypto token MIKO to incentivize users of our Food Donation app for KJSCE Hack 6.0.