YASH **JAKHOTIYA**

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EDUCATION

August '21 – Present

COMPUTER SCIENCE – MS, GEORGIA INSTITUTE OF TECHNOLOGY, ATLANTA

- Specializing in **machine learning**.

August '16 - June '20

COMPUTER ENGINEERING – B. TECH, COLLEGE OF ENGINEERING, PUNE

- CGPA – **9.2/10**.

WORK EXPERIENCE

MEMBER TECHNICAL – QUANT SYSTEMS, D.E. SHAW, HYDERABAD, **July '20 – July '21, May '19 – July '19**

- Directly managed firm's on-prem 3000 Linux hosts responsible for compute intensive trading jobs.
- As a summer 2019 intern, **automated** internal infrastructural alert assignments using **machine learning**, with features derived from **natural language understanding** of alert descriptions.
- **Pushed to production** before end of the internship, reducing the workload of an entire team by **86%**.

GOOGLE SUMMER OF CODE STUDENT, KUBEFLOW, GOOGLE CLOUD PLATFORM, **June '20 – August '20**

- **Kubeflow** helps machine learning practitioners **deploy workflows** on Kubernetes in a scalable manner.
- Demonstrated efficient use of all 6 components of Kubeflow with **ml pipelines** in well-crafted notebooks.
- Enabled new **customer onboarding**, bringing in **more adoption** of the product.
- Details of the project can be found at - https://yashjakhotiya.github.io/blog/

RESEARCH INTERN, INDIAN INSTITUTE OF SCIENCE, BANGALORE, **May '18 – July '18**

- Research and development work in **deep learning** for the institute's Video Analytics Lab.
- The project focused on **sequence-to-sequence modeling** with **generative adversarial networks**.
- Also systematized their **ml workflow**. The work led to a **research paper** after the end of the internship.
- Lab website – http://val.serc.iisc.ernet.in/valweb/

SELECTED PROJECT WORK

COMPUTER VISION, TIME SERIES MODELING, AND ADVERSARIAL ML

- Showed vulnerabilities of arXiv:1909.06865v1 to **adversarial attacks** with a **misclassification rate** of **23.9%**.
- Trained a **CNN Autoencoder** and a **two-layered LSTM** to detect anomalies in the UCSD Anomaly Dataset.
- Modeled **time series data** with Credit Suisse India and achieved an **MSE of 10^-3** on a downstream classification task.
- Achieved an **intersection over union (IoU)** of **0.8** in the Flipkart GRiD - 2019 object detection contest.
- All project sources can be found at - https://github.com/yashjakhotiya/.

ONBOARD COMPUTER SUBSYSTEM, COEP'S 2ND STUDENT SATELLITE INITIATIVE

- Created a **BCH Error Correction** module for onboard memory to counter bit flips caused by space radiation.
- The team's last satellite was launched by **ISRO** in June 2016, and it successfully completed its objective.
- Project website - https://www.coep.org.in/csat/

SUPPORT FOR CTAGS IN A SMALL OPEN SOURCE EDITOR

- Extended bric, a small **open-source** editor with a tags-based code navigation functionality.
- The implementation uses **UNIX's Exuberant Ctags** and was **merged** into the editor source code.
- All my contributions to the editor can be found at shnupta/bric.

LEADERSHIP

INITIATING SECRETARY, ASSOCIATION OF STUDENTS OF CE AND IT, COEP, **September '19 – August '20**

- **Took an initiative** to create a common **platform** for all students to interact and seek help from each other.
- **Organized** talks, contests and tutorials on competitive coding and open-source software.
- More details can be found at - https://www.coep.org.in/asci/events.html.

PROFESSIONAL SKILLS

- **Python** (PyTorch, TensorFlow, Keras, pandas, scikit-learn, NumPy, SciPy, Matplotlib, Seaborn, BeautifulSoup, Flask), **Puppet**, **Linux Shell Scripting, SQL**, **Matlab**, **C++** and **C**.
- Strong hold over **Machine Learning** (Computer Vision, Natural Language Understanding, Multimodal ML, and Adversarial Robustness), **Data Structures**, **Algorithms**, and **System Engineering** concepts.