

PARTH SHAH

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WORK EXPERIENCE

University of Florida

Gainesville, FL

Research Assistant - Modern Artificial Intelligence and Learning Technologies (MALT) lab

Oct 2019 to Present

- **Scientific data compression:**
 - Developing state-of-the art compression algorithms and **autoencoders** of high dimensional physics data for supporting exascale computing at the Princeton Plasma Physics Laboratory.
- **Temporal data - Traffic estimation:**
 - Devised a **queue length prediction** algorithm at signalized road intersections.
 - Analysed data from induction loop sensors for estimation of travel times using **platoon matching**.

Graduate Assistant - iHeal lab

Jan 2020 to May 2020

- **Intelligent ICU:** Implemented **Pose estimation** from RGB and depth images for monitoring patients in the ICU

HERE Technologies

Mumbai, India

Senior Software Engineer

Mar 2019 - Jul 2019

- **Computer vision:**
 - Developed a rapid prototype for a new product, later released as the [HERE LiveSense SDK](#).
 - Optimized **real-time object detection**, **multi-object tracking** and **distance estimation from 2d image stream**, to work on edge devices with hardware constraints.

Software Engineer 2

Jul 2017 - Feb 2019

- **Machine learning:**
 - Engineered automated detection of duplicate places in geospatial data.
 - **Collaborated with Subject Matter Experts (SMEs)** to understand and concretize the problem statement.
- **Full Stack development:**
 - Ideated, designed and implemented a drag and drop tool to create domain specific business rules, using the **visual programming** paradigm.
 - **Improved** the average turn around time of a rule by **80%**

Intern

Jul 2016 - Dec 2016

- **Backend development:** Built business rules in **scala**.

TECHNICAL SKILLS

- **Programming Languages:** Python, Java, Javascript (& HTML+CSS), Scala, SQL
- **ML Libraries:** Pytorch, Keras, Pandas, Numpy, Sklearn
- **Web Frameworks:** Vuejs, Angularjs(1.x)
- **DevOps:** Docker, Jenkins, AWS, gcloud, Git
- **Software engineering:** agile

EDUCATION

- **University of Florida, United States:** MS in Computer Science, **GPA: 3.79/4.0** **Expected Graduation: May 2021**
Coursework: Machine Learning, Deep Learning for Computer Graphics, Analysis of Algorithms, Advanced Data Structures, Mathematics for Intelligent Systems
- **BITS Pilani, Hyderabad Campus, India:** B.E. in Electrical and Electronics Engineering **Aug 2013 - Jul 2017**
Coursework: Quantum computing, cryptography

PUBLICATIONS

- P. Shah, A. Kanniganti and J. Soumya, "Fault-tolerant application specific Network-on-Chip design," 2017 7th International Symposium on Embedded Computing and System Design (ISED), Durgapur, 2017, pp. 1-5. **DOI:** [10.1109/ISED.2017.8303920](https://doi.org/10.1109/ISED.2017.8303920)
- R. Sengupta, R. R. K. Reddy, P. Shah, A. Rangarajan and S. Ranka, "A Platoon Matching Approach for the Estimation of Arterial Travel Time Distributions," 2020 IEEE 23rd International Conference on Intelligent Transportation Systems (ITSC), Rhodes, Greece, 2020, pp. 1-6, **DOI:** [10.1109/ITSC45102.2020.9294449](https://doi.org/10.1109/ITSC45102.2020.9294449).