

Daksh Jotwani

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Education

- **Purdue University** West Lafayette, IN
B.S. and M.S. Computer Science, B.S. Mathematics August 2016 - Present
 - GPA: **3.94/4.00**, Expected Graduation Date: **May 2020**
 - Relevant Coursework: Deep Learning, Machine Learning, Systems Programming, Data Structures, Algorithms, Databases, Computer Architecture, Linear Algebra, Real Analysis, Differential Equations.

Work Experience

- **Flipkart Myntra** Bangalore, India
Data Scientist Intern May 2019 - August 2019
 - Trained and deployed a face recognition-based authentication service to allow registered Flipkart customers to enter their unmanned stores.
 - Prototyped person reidentification (ReID) and human action detection models to automatically generate shopping cart receipts for Flipkart and Myntra's offline stores.
- **Purdue University** West Lafayette, IN
Undergraduate Research Assistant September 2018 - December 2018
 - Analyzed the performance impact of speculative region search for data-points in overlapping regions of an R-tree. Based on *The Case For Learned Index Structures* (arxiv.org/abs/1712.01208).
 - Constructed logistic regression and neural network models to speculate traversal routes of an R-tree.
- **Myntra** Bangalore, India
Software Engineering Intern May 2018 - August 2018
 - Applied computer vision techniques to monitor store traffic, analyze age/gender demographics, identify returning customers, and detect visual customer satisfaction.
 - Developed a system where computer vision-based inferences from store cameras are broadcast to store devices to provide personalized services such as product/size recommendations to customers.
- **Purdue University** West Lafayette, IN
Undergraduate Teaching Assistant August 2017 - May 2019
 - Teach and grade labs for a *Systems Programming* class that covers operating systems fundamentals.
 - Held weekly office hours for a *Systems Programming* and *Electricity and Magnetism* course.

Projects and Contributions

- **(Contribution) PyTorch** June 2019 - July 2019
 - Built a class-balanced dataset batch sampler (**PKSampler**) and an online triplet mining loss function (**TripletMarginLoss**) for PyTorch's torchvision module to tackle similarity learning problems.
 - Wrote training/evaluation reference scripts to showcase torchvision's similarity learning tools.
- **GTAi: Self Driving Car in GTA 5** March 2019 - Present
 - Built a data-collection pipeline to map frames to controller inputs and load them for model training.
 - Modelled a neural network architecture to output controls for a given frame using ResNet50 as a feature extractor, followed by a LSTM to infer temporal information from a sequence of frames.
- **PayShare** May 2018 - September 2018
 - Developed a web application using React and Firebase to split expenses among a group of people.
 - Applied Tesseract OCR to scan receipts and generate a list of items for users to select and split.

Skills

Languages: Python, JavaScript, C/C++, Java. **Frameworks:** PyTorch, TensorFlow, React, Flask.