SHIULI DAS

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EDUCATION

- *The Ohio State University, Columbus* — Graduation: May 2017
  M.S. Computer Science and Engineering — GPA: 3.77 (4.0 scale)
- *Birla Institute of Technology and Sciences, Pilani* — Graduation: June 2015
  B.E. Electronics and Instrumentation Engineering — GPA: 8.08 (10.0 scale)

SOFTWARE SKILLS

C, C++, Python, Java, SQL, HTML, Qt, MATLAB, Tableau, Elastic Search

WORK EXPERIENCE

Software Engineer (Embedded Algorithms), Magic Leap, Sunnyvale — Jul 2017 – Present
- Working on eye-tracking algorithms

Graduate Teaching Assistant, The Ohio State University, Columbus — Aug 2016 – Dec 2016
- Delivered biweekly lectures, oversaw and graded programming labs and held office hours to help about 40 students with "Introduction to Programming in C++"

Software Development Engineer Intern, Amazon, Customer Service Technology, Seattle — Jun 2016 – Aug 2016
- Delivered the business partners with a visual tool which is used to analyze the activity of customer service agents per contact (what they search for and what they click on), *Java*
- Used AWS products DynamoDB, Lambda and Kinesis to pipe the data from logs in real-time to a visualization tool on top of Elastic Search and Kibana

Project Intern, Center for Artificial Intelligence and Robotics, Bangalore — Jan 2015 – Jun 2015
- Developed a consolidated utility to track multiple objects in multiple networked cameras in real-time
- Used image processing techniques; developed using *C++,* openCV and Qt
- Features included: handshaking between multiple camera views for consistent object labeling, auto-initialization of the TLD (tracking-learning-detection) tracker using GMM based motion

PROJECTS

Breast Cancer Stage Classification: Convolutional Neural Networks for Irregular Data Points
Master's Project, Advisor: Dr. Raghu Machiraju, The Ohio State University — Sep 2016 – Apr 2017
- Predict staging based on image features from homogenous compartments from whole slide histology images, *Python*
- Used meaningful image features as input to convolutional neural networks instead of raw pixel values
- Developed methodology to apply convolutional neural networks on irregularly spaced data points

EMI Music Data Mining — Apr 2017
- Designed an algorithm that combines user's demographics, artist and track ratings, answers to questions about their preferences for music, and words that they use to describe EMI artists in order to predict how much they like tracks they have just heard (Team of 2)
- Developed custom collaborative filtering method which predicts ratings based on ratings given by other similar users

Human Pose Estimation Nov 2016

- Estimate human pose as standing/crouching/jumping/shooting in real time from live video feed to play Mario game
- Team of 3 (background subtraction + pose estimation + graphics), *MATLAB*
- Role: Pose estimation: Used similitude moments of still silhouettes and motion history images to train SVM and Decision Tree classifiers for the task of pose estimation as crouching/jumping/shooting

Recipe Visualizer Apr 2016

- Parsed and visualized a cooking recipe in a radial tree graph form, *Python*, *D3*
- Team of 3: Parsing + Visualization
- Role: Parsing: Divide the recipe statements into <Action, Ingredient, Cooking Agent>

Music Signal Separation Apr 2016

- Used RNN and soft-masking for music signal separation of monaural, synchronous violin and flute mixtures (0dB)
- Outputs signals predominant in one instrument, *MATLAB*

Part-Of-Speech tagger Mar 2016

- Implemented structured perceptron and Viterbi algorithm for part-of-speech tagging, *Python*
- Accuracy 89% when trained on twitter + penn tree bank + IRC chat data and tested on twitter data

Interpreter for Modified LISP Aug 2015 – Dec 2015

- Developed an interpreter to do parsing, check for syntactic and type errors and evaluation of S-expressions, *C++*