

Ashutosh Choudhary

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EDUCATION

- **University of Massachusetts** Amherst, MA
Master of Science in Computer Science; GPA: 3.80 Aug 2016 – May 2018
- **Visvesvaraya National Institute of Technology** Nagpur, India
Bachelor of Engineering in Electronics and Communication; GPA: 3.30 (8.18/10.0) Aug 2009 – July 2013

EXPERIENCE

- **Netra Inc.** Boston, MA
Research Intern | Computer Vision and Deep Learning Jan 2018 - Present
 - Working on a deep vision pipeline for mining consumer insights in social media data.
- **Ultimate.ai** Tampere, Finland (remote)
Research Intern | Natural Language Processing and Deep Learning May 2017 - Jan 2018
 - Worked in the Natural Language Understanding team to implement different components of a customer service agent. (chatbot)
- **Advanced Networked Systems Research Lab** UMass , Amherst MA
Research Intern | Javascript, PHP and MongoDB May 2017 - Jan 2018
 - Worked as a full stack developer for a location based emergency notification system.
- **Oracle** Hyderabad, India
Senior Software Engineer | Full stack, Mobile apps, IoT, SQL, Java Jun 2013 - Jul 2016
 - Full stack development of web applications for Supply Chain E-Business services including configure-to-order, outsourced manufacturing and product quality.
 - Lead a team of four to develop a cross-platform mobile application to assist Quality Managers to inspect production quality on a factory shopfloor and take actions on the go. The app is available on both Google Play Store and iTunes App Store.

PROJECTS

- **Constructing action graphs of recipes using text instructions, UMass** Aug 2017 - Present
 - Collaborating with MIT Materials Systems Lab to create action graphs of material science recipes.
 - Using hard EM method to estimate the prior and conditional distributions of graph connections.
- **Learning Representations for Automatic Video Colorization, UMass** Aug 2017 - Dec 2017
 - Using fully convolutional version of VGG-16 (CNN) to predict per-pixel color histogram.
 - Using LSTMs on learned feature representation to maintain consistency between frames.
- **Context based chatbot with a personality, UMass** Jan 2017 - Apr 2017
 - Augmented the LSTM encoder-decoder model (SEQ2SEQ) with attention to integrate conversational context
 - Learned the persona embedding vector from the OSDB dataset, and used it to provide the chatbot a personality.
- **Deep neural network recommendation system for songs, UMass** Jan 2017 - Apr 2017
 - Trained a SEQ2SEQ model to understand long term trends in million songs dataset.
 - Implemented baselines with traditional approaches such as matrix factorization and collaborative filtering.
- **Integrating OSM with GSV using CNNs, UMass** Oct 2016 - Dec 2016
 - CNN trained on amenity images evaluates the probability of camera angles on Google Street View images.
 - Calculated the camera angle or heading of the GSV for each node in OpenStreetMap to show the correct picture, out of the possible 360°. Benchmarking was done using SVM and Naive Bayes classifiers.

PUBLICATIONS AND SKILLS

- **Publication:** Ashutosh Choudhary, Avinash G Keskar, et al. : "Adaptive Control Of Traffic Grid Using Fuzzy Logic", International Journal of Electrical, Electronics and Data Communication (IJEEDC), Volume-2, Issue-8, pp51-57, 2014
- **Languages:** Python, Java, SQL, Javascript, PHP **Technologies:** Tensorflow, Keras, MongoDB, ElasticSearch