Lisa Fan

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EDUCATION

Northeastern University, Boston, MA

Coursework and research toward a PhD in Natural Language Processing	*Sep 2017 - present*
Master of Science in Artificial Intelligence	*expected June 2019*

Tufts University, Medford, MA

Master of Science in Computer Science	*May 2017*
Bachelor of Science in Computer Science	*May 2016*
GPA: 3.87/4.0, *summa cum laude*, Phi Beta Kappa	
Studied abroad: Computer Science courses at University College London	*Sep 2014 - May 2015*

RELEVANT COURSEWORK

Natural Language Processing, Deep Learning, Deep Learning for Computer Vision, Artificial Intelligence, Human Robot Interaction, Statistical Pattern Recognition, Machine Learning, Experimental Methods in CS

RELEVANT SKILLS

Programming: *Skilled in* Python, Tensorflow, PyTorch, Linux, JavaScript, jQuery, HTML5, CSS, C++, C
                          Experience with Java, Ruby, SQL, R, PHP
Training: Collaborative Institutional Training Initiative (CITI Program) certified in Social & Behavioral Research
Languages: Native speaker in English and Japanese; Intermediate proficiency in Mandarin Chinese

RESEARCH EXPERIENCE

Quantifying and Detecting Political Bias in News   Boston, MA
Northeastern University, Natural Language Processing Lab   *Sep 2018 - present*
- Collecting a large-scale dataset of algorithmically aligned news articles from media sources like CNN, FOX
- Devising a bias categorization schema and developing an HTML and Javascript annotation tool
- Lead weekly sessions for a team of three researchers to compare and resolve differences in annotations
- Currently in the process of annotating 300 topic-aligned articles for public release

Improving Semantic Understanding of Automatic Text Summarization   Boston, MA
Northeastern University, Natural Language Processing Lab   *Sep 2017 - Sep 2018*
- Designed and implemented a multi-task learning neural abstractive summarization network in Tensorflow
- Formulated framework for a novel adversarial evaluation scheme using Python
- Trained numerous variations of model using Graphics Processing Units (GPUs) on Amazon Web Services
- Yielded better results than state-of-the-art summarizers based on automatic and human model evaluations
- Presented at 2018 NeurIPS Workshop on Interpretability and Robustness in Audio, Speech, and Language

Human Perceptions of Emotional Intelligence in Robots   Medford, MA
Tufts University, Human Robot Interaction Lab   *Sep 2016 - May 2017*
- Wrote, filmed, and edited scenarios using live actors and robots
- Created web survey infrastructure to show video then ask questions using HTML, Javascript, and PHP
- Administered study to ~400 crowdsourced participants on Amazon Mechanical Turk, analyzed results using R
- Nominated for Best Paper Award at 2017 International Conference on Intelligent Virtual Agents

RESEARCH EXPERIENCE CONTINUED

Generating Photorealistic Images from Hand-Drawn Sketches
Medford, MA

Tufts University   *Feb 2017 - May 2017*
- Used a generative adversarial network (GAN) and composed a novel mathematical objective function to reverse engineer photos from crudely drawn human sketches
- Outperformed a state-of-the-art GAN on newly designed and adapted existing evaluation metrics
- Produced as result artistic interpretations of sketches: https://lisafan.github.io/images/sketchgan_examples.png

RELATED WORK EXPERIENCE

Tufts University
Medford, MA

Teaching Assistant   *May 2015 - Dec 2016*
   Intro to Computer Science - Introductory class of 150 students *(Summer, Fall 2015)*
   Natural Language Processing - Graduate level class of 30 students *(Spring, Fall 2016)*
- Held review sessions before exams and guided individual students on assignments during office hours
- Corresponded daily with students and answered their questions via Piazza web forum
- Evaluated student performance by grading assignments and exams

Ditto Labs
Cambridge, MA

Software Engineer, Summer Intern   *June 2016 - Aug 2016*
- Created infrastructure to crowdsource training data for image classifiers using Amazon Mechanical Turk
- Improved dataset creation by using natural language processing on tweets to find relevant images

The MITRE Corporation
Bedford, MA

Software Engineer, Summer Intern   *June 2014 - Aug 2014*
- Collaborated with a team of 8 interns to engineer a series of intercommunicating control elements
- Programmed desktop and mobile clients using Java and JavaScript to display situational awareness data
- Successfully completed mock run of Air Force mission, relaying to and receiving flight data from Air Force operators

LEADERSHIP & SERVICE

Women in Computer Science, Tufts University
Medford, MA

Secretary   *Jan 2014 - May 2014*
- Revitalized club mission and constitution with other executive board members
- Scheduled and documented conversations at executive board meetings
- Organized workshops, seminars, and social events including fundraiser and mock interviews

Asian Women's Christian Association
Teaneck, NJ

Teacher   *July 2013*
- Taught a one-month course for SAT I Reading & Writing to a group of 15 low-income students
- Prepared lesson plans, graded homework and practice tests, mentored students

INTERESTS

Film (watched new movie every day for a year), Needle felting (crafting small figurines), Traveling (33 countries), Playing the theremin (electromagnetic musical instrument), Scuba diving (PADI Advanced Open Water certified)