

Ning (Angela) Ye

#4505 15 Grenville St, Toronto, ON, M4Y 0B9 | T: 778-929-1818 | E: angela.ye@mail.utoronto.ca

Education

Bachelor of Applied Science, University of Toronto

(2014 – Present)

- **Program:** Engineering Science student, Robotics specialization
- **Entrance Scholarship:** \$5,000
- **Awards:** Dean's Honours List (2014-2017)
- **GPA:** 3.85/4.0

Technical Skills

- Applications: Microsoft Office, Photoshop, Latex, Git, Anaconda
- Languages: Python, C, MATLAB, HTML/CSS, JavaScript, SQL, LabVIEW, Verilog, Assembly
- Operating Systems: Linux, Windows, MacOS

Course Projects

Thesis Project: Grocery Store Product Recognition and Identification

(Sept 2018 – Present)

- Designed a bounding polygon data annotation tool and used it to increase the ease of labelling synthetic data for training and testing.
- Implemented a multi-layered Siamese convolutional neural network (CNN) architecture using PyTorch for one-shot learning classification.
- Designed implementation to ensure network can be easily built upon and extended to RCNN algorithm for object detection and similarity analysis.

Natural Language Processing Projects

(Jan – Apr 2017)

- Preprocessed tweets into tagged tokens and extracted lexical features to build data to train classifiers with.
- Employed the use of WEKA classifiers in order to determine the sentiment of a test set of tweets.
- Used unigram and bigram models of preprocessed English and French models to compute word alignment between the two languages and ultimately translate an evaluation dataset.
- Constructed and trained Gaussian Mixture Models and continuous Hidden Markov Models for speaker identification and speech recognition respectively.

Machine Learning Projects

(Jan – Apr 2017)

- Classified faces of various actors using a linear regression algorithm and single-layered fully-connected neural network.
- Predicted polarity of reviews using the Naïve Bayes algorithm and benchmarked implementation against a Logistic Regression strategy to compare results.
- Tuned parameters and achieved a performance of 81% accuracy on the test set.

Employment Experience

Software Developer, Liscena Inc.

(Sept 2018 – Present)

- Designed a chat interface claims assistant using the DialogFlow platform to automate claim filing in the auto insurance space.
- Improved the UX experience to ensure a coherent flow of conversation.
- Built server side implementation using the Node.js framework to extract policyholder information from utterances, and store them into an AWS relational database.

- Built features into the claim assistant to handle FAQs from the policyholder and for automatic updates for claims filed through the system.
- Created endpoints to deploy machine learning models into a software as a service platform.

Embedded Systems Engineer, Aquova Inc.

(Sept 2017 – Aug 2018)

- Developed a hardware-in-the-loop architecture for an embedded controller to effectively treat industrial wastewater, demonstrating up to 30% improvement in efficiency compared to the standard controller.
- Designed printed circuit boards (PCBs) to incorporate DC converters and significantly reduced power loss of system by almost 20% through optimizing the PCB design and careful selection of components with low parasitic characteristics.

Research Assistant: Speech Data Processing and Classification

(June 2017 – Aug 2017)

- Processed a 16-hour audio file to create children-directed and adult-directed training speeches.
- Extracted acoustic features using openSMILE and applied Scikit-learn and WEKA tools to select top features for training and testing.
- Classified data using a selection of learners - Naïve Bayes, SVC, random forest, single-layer neural network and two-layered neural network.
- Transformed audio segments into wavelets as a means to extract acoustic features for further feature exploration and concluded that features from raw audio demonstrate a higher correlation for distinguishing between children vs. adult-directed speeches.

Private Tutor

(2016 – Present)

- Personally tutored students in both the middle school and high school level for various subjects and improved their GPA for at least one grade point.
- Adapted quickly to each tutee's learning capabilities and sought out different teaching methods for each individual tutee to effectively increase their overall understanding.