Yuma Tsuboi

yuma.tsuboi@mail.utoronto.ca
(647)-745-1938
http://zyuma.github.io

Education

M.Eng. in Mechanical Engineering (Social Robotics), *University of Toronto*   *Nov 2016*
- Introduction of social robots to the growing elderly population to assist the caregivers
- Grade average: **A-** (80-84%)

B.A.Sc. in Engineering Science (Electrical & Computer), *University of Toronto*   *Jun 2015*

- Artificial Intelligence	- Operating System	- Database
- Machine Learning/Data Mining	- Computer Security	- Statistical Analysis
- Algorithms/Data Structures	- Computer Networks	- Robot Design

Projects

Automated Emotion Recognition from Voice Intonation   *Sep 2015 - Oct 2016*
- Created an AI that detects a speaker's emotion from voice intonation in conversations
- Achieved 82% accuracy with Neural Networks in cross-validation
- Programmed voice feature extraction in Matlab/C++ and emotion classification in Python
- Installed on a humanoid robot to experiment with human interaction

Breathing Instructor Android App   *Sep 2014 - Apr 2015*
- Developed a guided breathing exercise app to combat anxiety
- Inferred breathing pattern via sound level from microphone and noise reduction
- Designed a UI of inflating/deflating lung for visual feedback
- Programmed to provide exercise parameters recommendation based on past performances

Smoking Cessation Android App   *May - Sep 2014*
- Collaborated with clinicians to assist cigarette smokers to quit smoking
- Designed a heatmap to show where relapse was experienced based on user input
- Programmed reminders to display pictures/videos to reiterate motivations for quitting
- Developed a calculator to display the amount of savings from deciding to quit

Work Experience

CAD Design Engineer Intern, *AMD - Sunnyvale, California*   *May 2013 - May 2014*
- Design Methodology team responsible for the internal CAD tool, a variety of EDA tools integrated using scripts, used for chip design
- Performed regression testing on chip floor-planning, pin and repeater placement, power, budgeting and EDA tool versions
- Managed chip layout features such as wiring and repeater insertion for power consumption and timing control using Python, Perl, C shell and Verilog

Skills

Programming languages: **Java**, **Python**, **C, C++, Javascript**

Technical tools:			
	- Linux	- Matlab	- HTML/CSS
	- SQL	- R	- Jinja2
	- Git	- Android Studio	- Perforce
	- Weka	- Google App Engine	