# Yen-Teh Liu

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## EDUCATION

**University of Colorado at Boulder,** Boulder, Colorado (**GPA: 3.86**)  **Aug 2015-May 2017**
- Master of Science in Computer Science, specialize in Data Science and Engineering

**National Chiao Tung University,** Hsinchu, Taiwan  **Sep 2009-June 2013**
- Bachelor of Science in ElectroPhysics

## SKILL

**Programming Languages:** Python, Java, C, JavaScript, HTML, CSS, PHP, MySQL
**Tools/Framework:** Matlab, Github, React JS, Firebase, Flask, OpenGL, Keras, Scikit-learn, Pandas, Microsoft CNTK
**Relevant Skills:** Machine Learning, Deep Learning, Data Science, Speech Processing, Digital Signal Processing, Natural Language Processing, Full Stack Web Development, UI Design and Development.

## WORK EXPERIENCE

**Qualcomm,** Auburn Hills, Michigan  **May 2016-Aug 2016**
*Engineering Intern with Speech and Deep learning specializations*
- Design Deep Neural Network and Recurrent Neural Network algorithms for wind noise reduction on automobile.
- Built Deep learning training framework in Microsoft Computational Network Toolkit (CNTK) with large dataset.
- Implement GPU parallel computing in CNTK to expedite the training process.
- Developed speech enhancement system from decoding to encoding from scratch.

**Research Center for Information Technology Innovation, Academia Sinica,** Taipei, Taiwan  **Sep 2014-June 2015**
*Full time research assistant*
- Designed Non-Negative Matrix Factorization hearing-aids algorithm with 12% consonant recognition improvement.
- Implemented Deep Neural Network system for Chinese syllable classification.

**Microsoft,** Taipei, Taiwan  **July 2012-June 2013**
*Student Intern*
- Instructed local sales person on Office, Windows 8 and Xbox.

## PROJECT

**FooBer, Food Delivery Matching Web App (JavaScript, React JS. Firebase as real-time backend)**
- Real-time food delivery matching service that matches the restaurants with delivery requests and service providers.

**WeTravel, Collaborative Travel Schedule Web App (JavaScript, React JS. Firebase as real-time backend)**
- Real-time travel scheduling app that provide users to add schedules, draw routes on the map and chat at the same time.

**My Quiz, Quiz taking platform (JavaScript. PHP as backend language with MySQL database)**
- Online quiz taking web application for students to take the quiz and teacher to make the quiz.

**Music Genre Classification (Matlab)**
- Constructed 6 genres music classification system with one-to-one multiclass Support Vector Machine (SVM).

**Natural Language Processing Tasks (Python)**
- Constructed deceptive online hotel reviews identification system.
- Implement Viterbi algorithm on Name Entity Recognition task on Biomedical Journal.

## SELECTED PUBLICATION

**Yen-Teh Liu,** Ronald Y. Chang, Yu Tsao, "A Deep Neural Network Approach to Mandarin Consonant/Vowel separation", IEEE International Conference on Consumer Electronics—Taiwan, 2015.

 **Yen-Teh Liu,** Ronald Y. Chang, Yu Tsao, "Non-Negative Matrix Factorization-based Frequency Lowering Technology for Mandarin Speaking Hearing Aid Users", IEEE International Conference on Acoustics, Speech and Signal Processing, 2016.

## COURSES

Search Engine and Analysis for High Dimensional Dataset, Natural Language Processing, Machine Learning, Objected Oriented Analysis and Design, User-Centered Design and Development, Computer Graphics, Digital Audio Signal Synthesis and Analysis.