Yi Yang

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Email:

AREA OF INTEREST

Machine Learning, Data Science, Communication and Networking

EDUCATION

- Department of Electical Engineering, University of Washington
  Master of Electrical Engineering Sep 2014-Jun 2016(Expected)
  Relevant Courses: Machine Learning, Artificial Intelligence, Information Theory, Applied Regression, Stochastic Process, Probabilty and Random Process, Computer and Communication Networks
- College of Information Engineering, Zhejiang University of Technology
  Bachelor of Engineering, Communication Engineering Sep 2009- Jul 2013

RESEARCH EXPERIENCE

- **The Algorithm of Joint User-Scheduling and Demand Response Control in Smart Grid.**
  Principle Researcher **Advised by Prof. Yuan Wu** Mar 2014 - Aug 2014
  - Conducted research on demand response and user scheduling problem in smart grid
  - Modeled users with three features: load factor, dissatisfaction, prooity.
  - Developed an algorithm based on Gibbs Sampling with varying temperature process and Lagrange Multiplier method
  - Used matlab to conduct numerical simulations
- **The Design and Optimization of the Demand Response Scheduling Algorithm in Smart Grid**
  Excellent Undergraduate Thesis **Advised by Prof. Yuan Wu** Oct 2012 - Jun 2013
  - Conducted research on using demand response to reduce the power deficit in smart grid.
  - Modeled users with two features: load factor, dissatisfaction.
  - Developed an algorithm based on redesigned binary particle swarm algorithm
  - Used matlab to conduct numerical simulations

CLASS PROJECTS

- **Pacman** (Ongoing)
  - Using Python to design pacman game. Technique includes search algorithm, Markov Decision Process, Reinforced Learning, Bayes Network and Approximate Inference.
- **Machine Learning class projects**
  - Random Feature Generation: Used Python to implement random Fourier features and random Binning features. Presented the project in class poster session.
  - Yelp dataset: Used Python to implement LASSO algorithm to do feature selection.
  - Click Through Rate (CTR): Used Python to implement Logistic Regression with Batch GD and SGD. Analyzed the precision and recall of the data
  - MNIST dataset: Used Python to implement LSVM algorithm with SGD, k-means algorithm and Neural Networks to analyze data.
- **Understanding Consumption Data in Smart Meter-Equipped Buildings.**
  - Dataset from Pecan Street. Proposed a HMM and HSMM method to capture the latent space of the consumption data. Used R to do data cleaning and analysis. Presented project in class.
- **Naive Bayes Classifier.**
  - Used python to implement Naive Bayes classifier with Bagging to build a spam filter and letter recognition claasifier.

WORK EXPERIENCE

- Grader of EE 505 PMP Probabilty and Random Process(Graduate Level)
  Univertsity of Washington Oct 2015 - Dec 2015
  - Prepared solution sets and graded homework.

SKILLS

- **Languages:** native Chinese, fluent English
- **Programming:** Python, Java, R, Matlab, C/C++, Octave
- **OS:** Linux, Windows