Yu Yang

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Department of Computer Science

Rutgers University

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EDUCATION

Rutgers University — Piscataway. NJ

Major: **Compute Science** (M.S.) (GPA: 3.83/4) — 2015-2017(expected)

Northeastern University — Shenyang, China

Major: **Software Engineering** (B.E.) (GPA: 3.54/4) — 2011-2015

RESEARCH INTEREST

My research interests broadly cover mobile computing, vehicle networks, urban computing and related data analysis.

PROJECT EXPERIENCE

Analysis of Trajectory Data in Urban City (Ongoing Master Thesis) **2016**

- Analyze trajectory data collected from bus, taxi, subway and cellphone in Shenzhen, China
- Apply machine learning to reconstruct and infer POI distribution from multi-source trajectory data

Infrastructure-free Parking Availability Crowdsourcing **2016**

- Driver's parking search path provides a stochastic estimation for the availability of those spots which the car passed by without taking
- Analyze users parking search paths and improve estimate of parking availability using parking search paths
- Responsible for designing an algorithm to find the statistically optimal search path to minimize a user's total travel time and evaluating the algorithm on a real work dataset of Seattle

Visualization of New York City Taxi Data **2016**

- Developed a web app to visualize taxi data of New York City
- Utilized Leaflet, D3.js to power animation
- Utilized Google BigQuery to support efficient spatio-temporal query

Urban Air Quality Prediction (Bachelor Thesis) **2015**

- Proposed a Random Forest based algorithm to predict urban air quality in Shenyang City using data from air quality monitoring stations, meteorology data, traffic report and point of interest data
- Implemented a portable PM10 sensor system in iOS platform
- Responsible for all the work including data collection, feature extraction, model fitting, evaluation and application

"Link Disk" System for Liaoning Mobile Company **2013**

- Developed an app of network file storage for mobile phones
- Utilized technology like load balancing and so on
- Responsible for server-side development

PUBLICATIONS

Han, G; et al. HySense: A Hybrid Mobile CrowdSensing Framework for Sensing Opportunities Compensation under Dynamic Coverage Constraint. IEEE communications magazine. (Accepted) **2017**

Yu, R., Yang, Y., Yang, L., Han, G. and Move, O.A., 2016. RAQ–A Random Forest Approach for Predicting Air Quality in Urban Sensing Systems. *Sensors*, *16*(1), p.86. **2016**

MANUSCRIPTS

Your Parking Search Tells Others Where to Park: Towards Infrastructure-free Parking Availability Crowdsourcing. (Manuscript) **2016**

WORK EXPERIENCE

NeuSoft - Software Developer Intern **2014**

- Joined a team to develop a customer relationship management system
- Responsible for database relationship design and API development

HONORS

Excellent Student Scholarship of Northeastern University	**2012 – 2014**
Excellent Student of Software College	**2013**
First Prize (Province-wide) in the "LanQiaoCup" Software Design Contest	**2013**
Second Prize (Province-wide) in the CUMCM	**2014**

SKILLS

- Theory: Data Mining, Probability Theory, Machine Learning
- Programming: Java, Python, Javascript, HTML, Golang, Swift
- Platform: JavaEE, Web, iOS
- Others: Hadoop, AWS