

Cheng Qian

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EDUCATION

NEW YORK UNIVERSITY

DOCTORATE

Applied Mathematics

Sep 2014 - present

Expected May 2018

GPA: 3.9

NEW YORK UNIVERSITY

MASTER

Financial Engineering

Sep 2011 - May 2013

GPA: 3.7

NANJING UNIVERSITY

BACHELOR

Mathematics, Statistics

International Finance

Sep 2006 - May 2010

COURSEWORK

GRADUATE

Applied Data Science

Machine Learning

Monte Carlo Simulation

Data Visualization

Network Analysis

Web Scraping

Time Series Analysis

UNDERGRADUATE

Visual C++ Programming

Database Management

Numerical Analysis and

Optimization (C++ & MATLAB)

Object-oriented Programming

Functional Programming

SKILLS

PROGRAMMING

Proficient:

Python • R • MATLAB

• C++ • \LaTeX

Familiar:

Git • SQL • SAS

LANGUAGES

Proficient:

Chinese-Mandarin • English

Familiar:

German

EXPERIENCE

NEW YORK UNIVERSITY | RESEARCH ASSISTANT

Feb 2016 – Present | New York, NY

- Worked with Prof. Yi Fang and Prof. Stanislav Sobolevsky on several Computer Vision and Quantified Community research projects
- Joint a collaboration between NYU MMVC Lab and NYU Medical Center on a wearable navigation system for visually impaired
- Built various supervised and unsupervised Machine Learning models to detect/predict socioeconomic patterns in New York City

NEW YORK UNIVERSITY | PYTHON LAB INSTRUCTOR

Sep 2016 – Dec 2016 | New York, NY

- Led graduate-level data science lab sessions with average class size 40 students
- Designed and prepared iPython Notebook for coding and teaching materials
- Got proficient/familiarized with a variety of supervised/unsupervised Machine Learning techniques

RESEARCH

NYU MMVC LAB AND MEDICAL CENTER | AI-DRIVEN WEARABLE NAVIGATION SYSTEM FOR VISUALLY IMPAIRED (ONGOING)

Spring 2017 | Brooklyn, NY

- Used ZED camera to capture real-time image, detected and labeled the objects and triangulate their depth (distance)
- Created different modes for user selection such as screen sweep, imminent threat alert etc.
- Identified the objects that will intersect with user's intended path and send out warning signals through multiple devices (vibration belt and/or headset with synthesized voice)

NYU CENTER FOR URBAN SCIENCE AND PROGRESS | PROBABILISTIC NETWORK OF NEW YORK CITY

Fall 2016 | Brooklyn, NY

- Ran advanced regressions to detect the existence of mobility pattern
- Explored how gravity model properties (e.g. distance exponent and local centrality metric) change over time and their potential in event detection
- Constructed probabilistic networks along with home-based network and displacement-based network of NYC based on social media activities
- Revealed hidden city network structure by clustering and community detection
- Combined with demographic data to highlight different features and trend within each community

NYU CENTER FOR URBAN SCIENCE AND PROGRESS | STRUCTURE OF THE 311 SERVICE REQUESTS AS A SIGNATURE OF URBAN LOCATION

Spring 2016 | Brooklyn, NY

- Classified each neighborhood in NYC with KNN method based on 311 data
- Splitted the data into 2000+ zones of distinctive socioeconomic profile, modeled various features with 90% accuracy
- Applied the model to NYC, Boston and Chicago, predicted future trends in local real estate prices