# **WANGJING KE**

Los Angeles, CA

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### **PROFILE**

Data Scientist

Data scientist with hands-on experience in statistical analysis, mathematical modeling, machine learning, and database administration. Proficient R, Python, and Java programmer, providing more than 40 researchers with analytic insights, data management and presentation of statistical results for publication to aid in research activities.

#### **WORK EXPERIENCE**

## **University of Southern California**

Los Angeles, CA 2016 - Present

 Develop statistical and machine learning models, utilizing streaming data from wearable sensors, for human habit recognition and behavior intervention.

- Perform ANOVA, time series multivariate on human health behaviors to increase result accuracy.
- Create dashboards for data visualization to improve team efficiency by allowing users to calculate participant compliance rates, and update the participant status for follow-up appointments.
- Provide programming solutions to data collection and management, and statistical analysis, such as:
  - SQL databases for multiple research projects with strict attention to detail
  - madresGPS, an Android app in Java to record encrypted geolocations in customizable time intervals
  - R package to harmonize month-long time series behavioral, dietary and biometric measurements
  - Python module to process minute-by-minute physical activity data from accelerometers

Data Analyst 2013 - 2015

- Developed predictive model, analyzing disease propensity in 250,000 people using medical records.
- Performed logistic regressions and A/B testing to determine the variables that affect the likelihood of heart disease.
- Managed more than 20 TB whole genome sequencing data and conducted quality control procedures.
- Performed principal component analysis to reduce data dimensions, controlling for multiple correlation.
- Designed and built machine learning models, combining clustering algorithms and k-nearest neighbor (kNN) algorithms to scan 40 million DNA mutations, identifying more than 70 heart disease related genes.

University of ArizonaTucson, AZResearch/Teaching Assistant2011 - 2013

### **EDUCATION**

University of Southern CaliforniaLos Angeles, CAMaster of Science – Biostatistics (GPA: 3.86/4.0)2016Doctor of Philosophy (Candidate) – Epidemiology2013 - 2015

University of ArizonaTucson, AZMaster of Public Health – Epidemiology (GPA: 3.92/4.0)2013Bachelor of Science – Biology (GPA: 3.9/4.0)2011

Awards/Honors: Graduated Summa Cum Laude, Phi Beta Kappa inducted

### **SKILLS**

**Programming:** R, SAS, Python, Java, SQL, Hadoop, Tableau, Microsoft Office (Word, Excel, PowerPoint, Access, Outlook) **Statistics:** A/B testing, predictive modeling, linear/logistic regression, time series, experiment design, data mining **Machine learning:** classification, clustering, regression models, feature engineering, principal component analysis **Language:** English, Mandarin Chinese