Curriculum Vitae: Qiang Zhang

Contact Information	Chinese Academy of Sciences North Forth Ring Road West Beijing, China, 100190	Mobile:+86-13261556062 Email: QiangZhang_PhD@outlook.com

Research Interests

Machine Learning, Physiological Signal Fusion and Modeling, Large-scale Clinical Data Analysis, Disease Diagnosis

Education

University of Chinese Academy of Sciences (UCAS), Beijing, China

M.Sc., Bioelectronics (Expected: June 2017)   **September 2014 - present**
- Advisor: Prof. Shanhong Xia
- Research Focus: Machine Learning, Multimodal Physiological data fusion
- Major coursework: Matrix, Stochastics, Functional Analysis, Machine Learning, Optimization, Data Structure and Algorithm, Signal Processing, Project Management
- GPA: 3.5/4.0

Shandong University (SDU), Jinan, China

B.Eng., Internet of things   **September 2010 - June2014**
- GPA: 3.6/4.0
- Rank: 1/49

Professional Experience

National Key Lab of Transducer Technology, Beijing

Graduate Research Assistant   **September 2014 - present**
- Topic: Physiological data fusion algorithm based on signal quality indice
- Goal: Improve heart rate and blood pressure estimation accuracy, and reduce false arrhythmia alarm rates
- Responsibilities:
  - Participating in clinical investigation and emphasizing online research
  - Data acquisition, cleaning and feature engineering
  - Prototyping and implementing machine learning algorithm, such as SVM and ANN
  - Developing GUI software for real-time data analysis

State Key Lab of Modern Communication Technology, Jinan

Undergraduate Researcher   **March 2012 - May 2014**
- Topic: An Intelligent Parking Guidance System
- Goal: Display available parking spaces on an electronic map in an APP and plan a route to the user-selected parking area
- Responsibilities:
  - Organizing weekly meetings and assigning tasks as the team leader
  - Communicating and cooperating with senior researchers
  - Developing cloud-based database system
  - Preparing draft manuscripts and corresponding to inquires

Internship	Research Group of Xinheyidian Company, Beijing
	Algorithm Engineer **May 2016 – present**

- Responsibilities:
  - Research of remote cardiovascular disease diagnosis based on electrocardiogram
  - Developing pattern recognition algorithms

Selected Publications	**Qiang Zhang**, Xianxiang Chen, Zhen Fang, and Shanhong Xia, "Reducing false arrhythmia alarm rates using multimodal heart beat detection and cost-sensitive support vector machines", *Physiological Measurement.* (Under Review)

Qiang Zhang, Xianxiang Chen, Zhen Fang, and Shanhong Xia, "Continuous Blood Pressure Monitoring Algorithm Using Pulse Transit Time and   Modified Kalman Filter", *Asia-Pacific Conference on Transducers and Micro-Nano Technology (APCOT)*, Japan, June 2016. (Conference paper)

Qiang Zhang, Xianxiang Chen, Zhen Fang, and Shanhong Xia, "False Arrhythmia Alarm Reduction in the Intensive Care Unit Using Data Fusion and Machine Learning", *International Conference on Biomedical and Health Informatics(EMBS)*, Las Vegas, February 2016. (Conference paper)

Qiang Zhang, Dong Bian, Zhongzhou Lu, and Wuxiang Zhou, "An intelligent parking guidance system", CN201410077409.3, 2014. (Patent)

Awards and Honors	2015 First-class Academic Scholarship at UCAS	(Top 3%)
	2015 Roll Student at Chinese Academy of Sciences	(Top 5%)
	2014 Top Ten Outstanding Class President at SDU	(10/20,000)
	2013 Third Prize in Chinese Undergraduate Contest of Innovation	(15/200)
	2012 National Scholarship	(Top 2%)

Technical Strengths	English Proficiency
	IELTS: 7.0

Computer Skills
- Broad experience with Windows 7, Matlab, Python, EndNote, MS Office Suite
- Frequent use of C, Java, Linux, Origin, MindManager, Internet, Eclipse
- Facility with SQL, R, GitHub, StackOverFlow, Photoshop, LaTex

Personal
- Excellent health
- Strong multidisciplinary and integrative abilities
- Thrives in collaboration environment
- Strong presentation and public speaking skills
- Interests include reading, music, basketball, body-building, cooking