LIZHI ZENG

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EDUCATION

- **MSc, Electrical Engineering, University of California, Los Angeles**, United States 03/2017
  GPA: 3.67/4.0
  Main Courses: Linear Programming, Large-Scale Data Mining: Models and Algorithms, Pattern Recognition and Machine Learning, Statistics Programming, Topics in Data Structure: Big Data Analytics
- **BEng, Electrical Information, Guangdong University of Technology**, China 07/2015
  GPA: 4.09/5.0 (Top 5%)

SKILLS

- **Programming Languages:** Java, Python, R, Matlab, C/C++, shell **Databases:** HBase, MPPDB, MySQL, Druid
  BigData/Hadoop Technologies: HDFS, Spark, Kafka, Oozie **Operating Systems:** Windows, Linux, macOS

RESEARCH EXPERIENCE

- **Research Associate, Cedars-Sinai Medical Center**, Los Angeles, United States 03/2016 - 03/2017
  Biomedical Imaging Research Institute (BIRI)
  - **Main Project**: Magnetic Resonance Imaging(MRI) system improvement with fitting algorithms and machine learning techniques.
  - **Responsibility**:
    - Used Matlab to simulate MRI shimming process.
    - Obtained optimal direct currents of magnetic resonance shimming coils with fitting algorithm.
    - Built simulation toolkit to obtain the optimal magnetic resonance shimming coil design.
- **Research Assistant, Guangdong University of Technology**, Guangzhou, China 04/2013 - 06/2014
  - **Main Project**: Generation methods improvement of bivariate Nakagami-m distributions. Nakagami-m distributions are widely accepted for communication system performance studies and wireless channel modeling.
  - **Responsibility**:
    - Reproduced the algorithm for generating bivariate Rayleigh and Nakagami-m distributed samples.
    - Optimized the original algorithm, improving the accuracy and time efficiency of generating Nakagami-m distributed samples.

WORK EXPERIENCES

- **Software Engineer, HUAWEI TECHNOLOGIES CO., LTD.**, Shenzhen, China 03/2018 - now
  Network Cloud Engine(NCE) Department
  - **Main Project**: Premium Broadband. This project aims to apply Big Data and AI to improve the user-experience of home network and operational efficiency of telecom operators.
  - **Responsibility**:
    - Developed two key features of Premium Broadband: Passive Optical Network Diagnosis and Wi-Fi Tune-up. 100,000+ online users now in Beijing, China. Expect to have 2,000,000 online users after commercialization.
    - Developed toolkits(Data engineering toolkit, Data backup and restore toolkit, Data visualization toolklit, etc).
    - Designed, built, and deployed an automatic verification system as PaaS(Platform-as-a-Service).
    - Mentored two engineering interns in software development.

SELECTED PROJECTS

- **Automatic Verification System** 09/2018 - now
  - This automatic verification system aims at improving stability and reliability of our big data solutions. The system can learn patterns from real data and generate simulated data given different conditions. It also provides a workflow scheduler for users to customize their verification process.
- **Passive Optical Network Diagnosis(Feature of Premium Broadband)** 08/2018 - now
  - This feature enables NCE to manage passive optical network automatically. The system is able to learn and draw real-time topology, as well as locate and identify faults automatically in a passive optical network.
- **Wi-Fi Tune-up(Feature of Premium Broadband)** 05/2018 - now
  - This feature enables NCE to manage wireless routers automatically. The system is able to learn and optimize Wi-Fi channel assignments to provide the best network experience for users.
- **Cross-Device Entity Linking (CIKM Cup 2016)** 02/2017 - 03/2017
  - This project aims to enable advertising companies to identify users and serve relevant ads to them. We trained a classifier to identify the same person across different devices without any persistent user identity like google or facebook account.
- **A New Hardware-based Imaging Platform for Magnetic Resonance Imaging(MRI)** 03/2016 - 03/2017
  - This project aims to improve MRI system with magnetic resonance shimming coils. We created a toolkit to simulate the MRI shimming process, and obtain optimal direct current of coils and coil design with fitting algorithms and machine learning techniques.

PATENTS

- Yuenan Zeng, Yan Chen, Lizhi Zeng, Rui Zhang, Rui Peng, Kangping Chen. A measurement methods of cogging torque in permanent magnet machines. Chinese Patent #CN105841867A issued 03/26/2018, filed 08/10/2016

AWARDS AND HONORS

- Excellent in probation appraisal at Huawei Technologies (2018)
- The Second Prize Scholarship of Guangdong University of Technology (2013 & 2014)
- The Provincial-level Second Prize of the 13th Challenge Cup Contest in China (2013)
- The Third Prize of SEMIKRON Scholarship (2013)
- Model Student of Academic Records of Guangdong University of Technology (2012 & 2014)
- National Scholarship of China (2012)
- The First Prize Scholarship of Guangdong University of Technology (2012)