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, Automation, 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**: MRI(Magnetic Resonance Imaging) system improvement with fitting algorithms and machine learning techniques.
  - **Responsibility**:
    - Used Matlab to generate MRI shimming simulation.
    - Improved the fitting algorithm to obtain the optimized DC(Direct Current).
    - Designed and built simulation toolkits to achieve the optimized MR(Magnetic Resonance) coil designs.
- **Research Assistant, Guangdong University of Technology**, Guangzhou, China 04/2013 - 06/2014
  - **Main Project**: Generation methods improvement of Nakagami-m distributed random variables. Nakagami-m distributed RVs are important in wireless-communication simulation.
  - **Responsibility**:
    - Reproduced the algorithm for generating bivariate Rayleigh and Nakagami-m distributed random variables(RVs).
    - Optimized the original algorithm, improving the accuracy and efficiency of Nakagami-m RVs generation.

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. They have one hundred thousand online users in Beijing, China
    - 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

- **Passive Optical Network Diagnosis(Feature of Premium Broadband)** 09/2018 - now
  - This feature enables NCE to manage passive optical network automatically. The system is able to learn real-time topology and locate faults automatically in a passive optical network.
- **Wi-Fi Tune-up(Feature of Premium Broadband)** 07/2018 - now
  - This feature enables NCE to manage access points, also known as wireless routers, automatically. The system is able to learn an optimal Wi-Fi channel assignment of access points to provide the best network experience for users.
- **Automatic Verification System** 06/2018 - now
  - This automatic verification system aims at testing the stability and reliability of big data solutions in a convenient way. The system can learn patterns from real data and generate data given different conditions. It also has the ability to complete the verification process automatically from data generation to result validation.
- **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 account.
- **A New Hardware-based Imaging Platform for Magnetic Resonance Imaging** 03/2016 - 03/2017
  - This project aims to adjust the inhomogeneity of magnetic fields to improve MR(Magnetic Resonance) image quality. We created a toolkit to simulate the MRI shimming process, and obtain optimal DC(Direct Current) and MR shimming 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 of 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)

REFERENCES

Director of Magnetic Resonance Engineering
Department of Biomedical Imaging Research Institute, Cedars-Sinai Medical Center, Los Angeles, United States
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