Sheng Li
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Profile

- Final year, high distinction average Master of Electrical Engineering student (major: Energy System)
- Analytical and problem-solving capacity applied through conducting scientific research at UNSW
- Conducted lab experiments and modern simulation platforms for the power system analysis
- Conducted application designs using Python at Wanfang and signal processing using Matlab at UNSW
- Strong communication and coordination skills from 2 years' experience in teaching, service and projects

Education

- **Master of Electrical Engineering; High Distinction average** Feb 2018 – Dec 2019
  University of New South Wales *Sydney, NSW*
  Thesis: Data Analysis for Smart Buildings
  Supervisor: Dr. Hassan Habibi Gharakheili

- **Bachelor of Electrical Engineering; WAM: 89** Aug 2013 – July 2017
  Nanjing Institute of Technology *Nanjing, Jiangsu*
  Thesis: Optimization and Control of DC/DC Transformer for DC Distribution Power Network
  Supervisor: A/Prof. Liang Zhang

Relevant Experience

- **Course Facilitator** Feb 2019 - May 2019
  EET Casual Academic of UNSW *Sydney, NSW*
  - Assessed student needs and designed tailored lesson plans addressing key areas of concern
  - Developed a LaTeX template guideline for project based learning reports
  - Conducted face-to-face group meetings for 32 students to demonstrate solutions to tutorials and provide consultation for project based learning
  - Liaised with the lecturer to evaluate students' participation and informed progress in development

- **Project Member** Jul 2018 - Present
  UNSW Smart Campus Research *Sydney, NSW*
  - Responsible for instrument EET building with 40 beam counters and 18 people counting cameras
  - Monitored real-time occupancy patterns of EET laboratories and study space area
  - Presented the elevator usage data to EM for decision of when best to schedule elevator repairs/outages
  - Fused sensor data to improve the accuracy of the room occupancy estimation by 56%
  - Produced 2 technical supporting reports and documented 5 device information csv files

- **Software Developer Intern** Nov 2018 - Feb 2019
  Wanfang Electronic Company *Yangzhou, Jiangsu*
  - Tested the software and hardware functions of Neolylin System and perform troubleshooting
  - Tested the working conditions of 8 switchers in Linux and synthesised 1 summary report
  - Collaborated with two software engineers to develop the back-end management system
  - Used JIRA to document defects and report problems

Additional Experience

- **Project Leader** 2011 - 2013
  Jiangsu Students' innovation training program *Nanjing, Jiangsu*
  - Led a team of 5 undergraduates to conduct research on a DC/DC bidirectional converter in the DC grid
  - Analysed characteristics and performance of various DC/DC converter topologies
  - Explored the structure of the dual active bridge converter and simulated its performance on Simulink
- **Casual Tutor** Sep 2018 - Nov 2018
  Houdao Education *Sydney, NSW*
  - Increased understanding through transforming challenging concepts into simplified examples
  - Demonstrated 2 assignments regarding DAB DC/DC converter and grid connected 3-phase VSI
  - Helped 50 students get prepared for final topics about multilevel inverters, PV system, non isolated converters, grid connected inverters and HVDC

MEMBERSHIPS and CERTIFICATE

- **UNSW Engineering Sessional Teaching Staff Development Program** Feb 2019 - May 2019
  - Introduction to tutoring and demonstrating in the Faculty
  - Introduction to learning, tutoring and demonstrating
  - Reflection on practice

Technical Skills

- Microsoft Office (Word, Excel, PowerPoint and Outlook) – completed online training for office use
- Machine learning - implemented the speaker recognition system using GMM and speech recognition with HMM
- Linux - designed and implemented computer-based real time systems with RTAI
- Web programming - utilized Python, JavaScript, SQL, Flask, Bootstrap and Jquery for back-end management system at Wanfang
- Data Analytics - used python to build the broker scripts and performed data analysis on sensor data with R
- C/C++ - received High Distinction for an image processing and a control course
- Matlab - received High Distinction for a microelectronics course and utilized in speech signal processing and power system modelling in the training program
- Psim - utilized in 2 power electronics course (High Distinction) to verify the design and calculations
- Power world - receive 1st place for a energy system course and utilized to analyze the power flow, faults, stability and ED operation
- Ansys Maxwell - analyzed distribution of electric stress
- Xilinx vivado - designed FIR filters and performed a hardware co-simulation on the FPGA
- Latex - utilized online editor overleaf to write all the assignment reports and resume

Referees

Dr Jayashri Ravishankar
Senior Lecturer - Power System Analysis, UNSW

Dr Hassan Habibi Gharakheili
Supervisor, UNSW Smart Campus Research

Contact details available upon request