Rui (Ray) Yuan

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Objective

With one-year practical working experience as an electronic & software engineer, plus an academic background in Telecommunications and Electrical engineering. I am pursuing a doctoral degree in electrical engineering with research interest in consumers' responsiveness modelling, where I may use my tertiary knowledge and practical experience to support projects, solve complex problems, contribute to a team and add significant value to an organisation, whilst also continuously learning and growing my skills on data mining and data analytics. As an industry PhD candidate, my research is supported by a Denmark company WATTS, who also helped me honing my skills on cloud computing platforms like Databricks.

Employment History

2019 - 2020 Sage View Technology - **Electronic Engineer**
Oakleigh, VIC

- Worked with NOVATTI company building payment system based on Alipay White Box (ReactJS and NodeJS).
- Rebuilt the business website (search page, payment function, database movement).
- Responsible for the virtual tours function by capturing panoramic photos and processed them with Cupix
- Added a machine learning functionality to the company service by developing an image processor with two ways' GAN.

Education

Master's Degree - Electrical Engineering
The University of Melbourne
2017-2019 Melbourne, VIC Australia

Bachelor's Degree – Telecommunications Engineering
Harbin Institute of Technology
2012-2016 Harbin, Helong Jiang Shen, China

Degree Related Projects

Research Assistant Internship || RMIT University & RELUXE | 2020

- Manage the model development and optimization of the research project

- Hold the regular meetings
- Build a practical virtual fitting model, leveraging machine learning methods (Tensorflow and Pytorch framework)
- Contributed open source projects (MIT intro to deep learning, cp-vton-plus, Self-Correction-Human-Parsing)

ANZ Virtual Internship Program || ANZ | 2020

- Investigated a list of emails and classed some of them as malicious
- Detected 3 suspicious network activities by applying cyber security knowledge
- Analysed packet capture files from ANZ inner network traffic
- Rebuilt the network activity and extracted images and files
- Examined the raw HEX and analysed the data

Capstone Project || University of Melbourne | 2018 - 2019

- Delivered a city-scale energy consumption model with an hourly resolution in a group of three
- Took charge of modelling energy consumption for buildings, data analysis and prediction
- Modelled all 38 archetypes by eQUEST software
- Predicted future energy consumption by deep learning
- Received first-class honour for the work conducted

Machine Learning and Optimisation || University of Melbourne || 2019

- Learned about optimisation theories
- Applied optimisation theories on conventional machine learning problem
- Practised coding for neural network and deep learning
- Programmed a pendulum to make it balance in virtual environment by reinforcement learning
- The program managed to balance the pendulum for 90 seconds with strong disturbances

Digital Storage Oscilloscope || University of Melbourne || 2018

- Designed the schematic based on requirements
- Built and simulated the schematic in LTspice
- Created libraries and format for some components, layout design by Altium Designer
- Assembled the Oscilloscope by soldering, testing and troubleshooting
- Programmed CPLD and MCU (Given code in this project)
- The oscilloscope showed stable performance within 20Mhz inputs

Control System || University of Melbourne || 2018

- Built mathematical model for a given inverted pendulum on the EV3 robot
- Simulated the model in Matlab and applied control theories to keep the system stable
- Programmed the EV3 robot and balanced the pendulum with a disturbed environment

PCB Game Console || University of Melbourne || 2017

- Drew the schematic based on given components
- Designed the PCB layout
- Assembled the JTAG and circuit board by hand soldering
- Programmed the game for the PCB

- Burned the game in and adjusted the performance

Graduation Project || Harbin Institute of Technology || 2016

- Focused on remote sensing algorithms on green algae detection
- Collected and analysed three satellites raw data sources
- Researched and applied 5 algorithms on collected satellite data
- Improved algorithms based on satellite sensors

Technical Skills

- Programming (JavaScript, C, PYTHON, LINUX, PHP)
- Industry software (Bitbucket, JIRA, Slack, GitLab, Github)
- High speed electronics design
- Network engineering (Juniper Associate Network Engineer)
- Cloud computing (Azure-900)
- Printed Circuit Board design
- Signal processing (filter design by Matlab and DSP)
- Machine learning
- Report writing (LATEX, MICROSOFT OFFICE)

Additional Qualifications and Licences

Network Engineer Certification (JNCIA-JUNOS) | Juniper Networks

Professional Year Program | Engineers Australia

Certificate IV in Business | Navitas Professional

NAATI Interpreter Certificate

AZ-900 Cloud Computing Certification | Microsoft

Awards and Achievements

Winning Award - Innovation and Entrepreneurship Competition for Overseas Scholars | China Ministry of Education and the Ministry of Science and Technology

First Class Honours – Capstone Project | University of Melbourne

Graduation Project Award | Harbin Institute of Technology

Minor Award Scholarship | Harbin Institute of Technology

Referees

References can be provided upon request