

Ruth Schulz

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SKILLS

Coding Languages: Python (Numpy, Scikit-learn, Matplotlib, Pandas, sumy, spaCy), C++, C, MATLAB

Artificial Intelligence: Natural Language Processing, Computer Vision, Machine Learning Algorithms, Neural Networks, Search, Robotics

Deep Learning Frameworks: Tensorflow, Keras, PyTorch

INDUSTRY EXPERIENCE

Fellow, Insight Artificial Intelligence Program

September 2019 – present

Built a book summarizer using the python NLP libraries sumy and spaCy and a neural text generator.

Evaluated the summarizer with ebooks from the Gutenberg Project and summaries from the CMU Book Summary Dataset.

Research Scientist, CSIRO

January 2013 – June 2013

Deployed the Museum Robot at the National Museum and provided usability recommendations for software used by school teachers and students.

Wrote a user guide for museum staff that was still being used in December 2015.

Design Engineer, EDM Limited

February 2004 – February 2005

Provided usability recommendations for metering software.

Developed software for a wireless metering device.

POST DOCTORAL POSITIONS

Stuttgart University

December 2016 – August 2018

Designed a robot system for performing collaborative table-top tasks using a PR2, extending a C++ codebase, in collaboration with 4 Master's students and 1 Bachelor's student.

Ran a series of exploratory human-robot interaction studies with 32 participants.

Co-lectured "*Practical Course Robotics*" using Baxter, ROS, and python to complete robotics projects.

Queensland University of Technology

January 2014 – June 2016

Conducted research to develop a robot system for a Guiabot to navigate through built environments.

Collaborated with Chief Investigators, post-doctoral researchers, and PhD students on the Australian Research Council Discovery Project "*Human Cues for Robot Navigation*".

Co-lectured "*Microprocessors and Digital Systems*" to ~300 students using C programming and ncurses.

The University of Queensland

July 2008 – December 2012

Conducted research for the "*Lingodroids*" project, exploring robot language.

Designed a robot system for Pioneer 3 DX's to create their own language, extending a C++ codebase.

Lectured "*Artificial Intelligence*" to between ~70 and ~100 students, covering topics including Neural Networks, Bayesian Networks, and Decision Trees.

EDUCATION

PhD in Computer Science, The University of Queensland

November 2008

BE (Electrical) and BS (Computer Science), The University of Queensland

December 2003