Jason Moggridge

Position Title

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Experience

Researcher
Nipissing University 2018 - 2019

Applied machine learning to smart health applications[1]

- Implemented neural network techniques as described in research papers
- Developed methods of visualizing trained neural networks
- Developed and trained neural networks in an HPC environment

Full Stack Web Developer
Nipissing University 2017 - 2018

Built a visual analytics platform for environmental monitoring[2]

- Worked in a multidisciplinary team to design analytic tools
- Performed data cleaning and ingestion on sensor data
- Developed a performant web application for complex data analysis

Programmer
Nipissing University 2016

Ran experiments in a shared HPC environment

- Worked with code targeting GPGPU and XeonPhi platforms
- Used Linux tools to manage computing resources

Programmer
Nipissing University 2015

Used web scraping to automate data collection

- Developed tools to assist a data collection team
- Wrote scripts to clean and collate data

Web Developer
Nipissing University 2013 - 2014

Develop front end web application for role based collaboration tools

- Worked as junior developer in team
- Helped design user oriented web UX

Staff Cadet
Central Region Gliding School 2012

Helped organize staff and cadets

- Managed aircraft ground crew and helped ensure flightline safety
- Organized ceremonial graduation parade

Cadet Squadron Commander
Local Cadet squadron 2011 - 2012

Organized and oversaw squadron level activities

- Performed task delegation and personnel management
- Mediated disputes

Course Cadet
Central Region Gliding School 2010

Glider Pilot Scholarship

- Learn quickly in a fast paced environment
- Work as part of a large team

Skills

Strong: C, JavaScript, PostgreSQL, Rust, Bash, Linux, Python, Git

Knowledgeable: PostgreSQL, Julia, WASM, Tensorflow, Keras, ConTeXt

Publications

Co-Authored

1. Wachowiak, M. P., Moggridge, J. J., & Wachowiak-Smolikova, R. (2019). Deep Embedded Clustering for Data-Driven ECG Exploration Using Continuous Wavelet Transforms. 2019 International Conference on Information and Digital Technologies (IDT). doi: 10.1109/dt.2019.8813501

Acknowledgement

2. Wachowiak, M. P., Walters, D. F., Kovacs, J. M., Wachowiak-Smolíková, R., & James, A. L. (2017). Visual analytics and remote sensing imagery to support community-based research for precision agriculture in emerging areas. Computers and Electronics in Agriculture, 143, 149–164. doi: 10.1016/j.compag.2017.09.035

Education

Coursework towards BSc Computer Science — Nipissing University — 2013 - 2019

- Contributed to ongoing research projects
- Gave talks for the computer science club