

Ian E. McDougall

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Experience

Praxair, Tonawanda NY

Advanced Process Controls Engineer (Engineer II) Jul 2013—Apr 2016

- Developed and deployed model predictive control (MPC) to improve efficiency at cryogenic air separation plants globally.
- Built and maintained computer systems to support the company-wide MPC platform. Supported MPC systems globally.
- Upgraded and maintained several older MPC controllers.
- Configured training simulations and taught systems topics at bi-annual internal training.

Advanced Process Controls Engineer (Engineer III) May 2016—May 2018

- Continued responsibilities of previous role.
- Supported MPC controllers in the Scandinavian region.

University of Massachusetts Lowell, Lowell MA

Research Assistant Jan 2012—Jul 2013

- Interpreted and manipulated rheological data sets.
- Learned use of specialized rheology software.
- Wrote and documented scripts in Perl for conversion of rheological data between formats.
- Conducted research into theoretical interpretation of rheological data.
- Published: McDougall, I., N. Orbey, and J. M. Dealy, "Inferring meaningful relaxation spectra from experimental data," J. Rheol. **58**, 779 (2014) <http://dx.doi.org/10.1122/1.4870967>

Education

University of Massachusetts Lowell, Lowell MA

BSE Chemical Engineering May 2013

- Mathematics Minor
- GPA: 3.4/4.0
- Regulatory Compliance Officer and Process Controls Engineer for the green-field design of a viscose rayon production plant in Texas (Chemical Plant Design Project).

Skills

Languages: R, PowerShell, MATLAB, Perl, bash, VBA, BASIC

Software: Aspen DMC+, GE iFix, Hyper-V, COMSOL Multiphysics, Simulink, Aspen Plus, SIMCA P+, Microsoft Office

General: Data Analysis, Statistics, Process Control, Chemistry, Programming, Process Engineering, Design of Experiment, Process Simulation, Distillation