NealDawson-Elli

Chemical Engineer - Data Scientist

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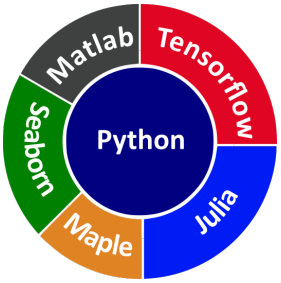
Web & Git
nealde.github.io
github.com/nealde

Programming



OS Preference
GNU/Linux ★★★☆☆
MacOS ★★☆☆☆
Windows ★★★★★

Availability
Summer 2018

Interest
Data Analysis
Modeling
Machine Learning
Software Carpentry

Experience

08/17 - 09/17 **Software Engineer** Faraday Technologies, Dayton, OH
Design and development of software for data analysis for electropolishing of metal surfaces. Implementation of neural networks for process selection.

01/14 - 06/15 **Technician** OLEDWorks, Rochester, NY
Development of software for improved data management in Excel VBA, operation of a chemical vapor deposition chamber for OLED device creation.

03/13 - 08/13 **Technician** Empire Precision Plastics, Rochester, NY
Database overhaul in Filemaker, creation of searchable databases in Excel, management of injection molding and ultrasonic welding processes.

05/12 - 08/12 **Technical Intern** Corning Incorporated, Corning, NY
Independent research on the creation of coatable separators for ultracapacitors, focus on scaling up and improving current processes.

05/11 - 08/11 **Technical Intern** Corning Incorporated, Corning, NY
Focus on scaling up of ultracapacitor material fabrication and reduction of hazardous waste.

Education

2015 - 2020 **Ph.D in Chem. Engineering (Expected)** Univ. of Washington, Seattle, WA
with Option in Advanced Data Science and Option in Data Science
Research:
Improving the performance of physics-based li-ion battery models using data science techniques
Principle Investigator: Prof. Venkat R. Subramanian.
GPA: 3.59/4.0

2010 - 2015 **B.S. in Chemical Engineering** Rochester Inst. of Tech., Rochester, NY
Main subjects:
Fluid Mechanics, Thermodynamics, Reaction Engineering, System Dynamics and Control, Material Science
GPA: 3.58/4.0

Publications

N. Dawson-Elli, S.B. Lee, M. Pathak, K. Mitra, V.R. Subramanian
Data Science Approaches for Electrochemical Engineers: An Introduction through Surrogate Model Development for Lithium-Ion Batteries
Journal of the Electrochemical Society 2018 volume 165, issue 2, A1-A15

revised - January 12th, 2018