Peter M. Maneykowski

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EDUCATION

University of Illinois at Urbana-Champaign   *Expected December 2019*

Major: Systems Engineering & Design
Secondary Field: Computer Science
Honors / Awards:
Dean's List   Spring 2019
The Kenneth W. Hamming Scholarship, *(based on academic merit)*   2014 & 2015

Francis W. Parker School, *Chicago, IL*

EXPERIENCE

Caterpillar Inc.   Research Park – Champaign, IL
Data Innovation Lab Intern   Aug 2015 – Aug 2017

Predix Platform Evaluation, *IoT*   *Jan 2017 – Aug 2017*
The team evaluated the Predix cloud platform and determined if it met the business needs of
Caterpillar's data groups.
- Interfaced with Predix data analytics API
- Uploaded real-time machine data (from IoT Linux device) to Predix cloud

Hydraulics Part Identification, *Web Development*   *May 2016 – Nov 2016*
Created a mobile and web application to improve inventory management at CAT
dealerships, which has expanded to global facilities to improve service efficiency.
- Configured and deployed remote MySQL database
- Created a RESTful API in Python using the Flask microframework
- Deployed a nginx http server with SSL encryption
- Added UI components in Angular 2

Machine Part Image Recognition, *Computer Vision*   *Jan 2016 – May 2016*
Researched the capabilities of advanced open source technologies in computer vision,
resulting in a product that determined the essential features in determining a part number.
- Performed analysis on existing image data using OpenCV
- Evaluated different patterns in images using NumPy and SciPy

Lumpy Demand Forecasting, *Analytics / Machine Learning*   *Aug 2015 – Dec 2015*
Built a neural network time series predictive model for low quantity machine parts. The
result was 30% more accurate than incumbent method and currently used to learn about
demand patterns.
- Researched cutting edge demand forecasting models
- Created pipelines from data source using Python and R
- Contributed R scripts to add input features to neural net

UIUC Department of Industrial Engineering   Champaign, IL
Research Associate   May 2016 – Present
I assist Dr. Richard Sowers in his work on creating machine learning models to produce solutions for
problems related to agriculture. Analyzed the GPS of farmers in soil/soybean composition to better
predict annual yields.
- Developed statistical models using `scipy.optimize`
- Co-authored published paper: https://onlinelibrary.wiley.com/doi/abs/10.1111/nrm.12158

ADDITIONAL INFORMATION

Skills: C, C++, PHP, Python, (NumPy, SciPy, OpenCV, Flask), Java, Node.js, R, MATLAB
Activities: Fluent in Polish, UIUC Club Tennis Traveling Team, Delta Tau Delta Fraternity
Interests: Tennis (5.0 NRTP rating), skiing, music, traveling, stock trading