

# Mikel Polena

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## EDUCATION

Bachelor of Science in Computer Engineering, Illinois Institute of Technology      2013 – 2015  
College of DuPage      2010 – 2012

## COURSEWORK

Digital Circuit Design	Discrete Math and Algorithms	Computer Architecture Design
Computer Networks	Inter-Professional Projects	Microcomputers
Signals and Systems	Systems Programming	VLSI Design
Operating Systems	Modern Physics	Database Organization

## SKILLS

**Languages:** Python, C, C++, Go, SQL, php  
**Tools:** Selenium, REDCap, Git, vim, tmux, VS Code, Jupyter, Power BI, PostGres  
**Python libraries:** Numpy, Pandas, Scikit-Learn, Keras, Pytorch, OpenCV, Tensorflow and others  
**C++ libraries:** STL, Boost, OpenMP  
**Algorithms:** Backpropagation, Linear and Logistic Regression, Time Series Analysis  
**Github:** <https://github.com/mpolena>

## EXPERIENCE

**Python Developer / Data Analyst** – Shirley Ryan AbilityLab - Chicago, IL

May 2019 – current

- Consolidate multiple complex data sets in order to create data repositories that serve as the foundation for advanced analytic models used throughout the institution.
- Design software that automates data collection and eliminates manual data manipulation.
- Use multiple APIs to successfully automate data migration from different sources into REDCap, a secure HIPAA compliant web application used for building and managing online surveys and databases.
- Act as Interim REDCap Supervisor/Administrator overseeing user access requests, approval of in production project changes and addressing ad-hoc implementation challenges.
- Uncover trends, patterns, correlations and other relationships in medical health records to deliver actionable insights that improve patient care.
- Collaborate with stakeholders to tune models and interpret outcomes in order to make them suitable for decision support at senior and executive management levels.
- Perform ad-hoc data analysis on patient satisfaction, operation management and safety related events.
- Design complicated SQL queries that continually pull data from the Enterprise Data Warehouse and present it in dashboards for various stakeholders throughout the institution.

**Data Analyst Intern** – University of Illinois Chicago CHECK Program

May 2017 – Jan 2018

- Performed analysis on the program's patient outreach effort by examining trends and efficiency and their impact on minimizing patient risk and medical costs.
- Worked with complex datasets cleaning and parsing data in order to improve program utilization.
- Assisted with database migration from the IT Department to the Data Team.
- Participated in weekly data meetings where analysis was presented and discussed.

## ACADEMIC PROJECTS

**STEPS** – Solutions That Enable Phone Security was a multilayer security solution concept that protected users in case of smart device theft. STEPS was developed in collaboration with four other students as an Inter-professional academic project and was selected among twenty other projects to be presented in front of the **FCC Technical Advisory Council meeting Dec. 2014 - Washington D.C.**

## DATA SCIENCE & MACHINE LEARNING BACKGROUND

### Coursera

	Certification/Completion Date
• Python Curriculum (four courses) – University of Michigan	March 2017
• Machine Learning – Stanford University, Prof. Andrew Ng	June 2018
• DeepLearning.ai – Stanford University, Prof. Andrew Ng	
○ Course 1: Neural Networks and Deep Learning	August 2018
○ Course 2: Structuring Machine Learning Projects	August 2018
○ Course 3: Improving DNNs: Hyperparameter Tuning, Regularization and Optimization	August 2018
○ Course 4: Convolutional Neural Networks	September 2018
○ Course 5: Sequence Models	September 2018

### NVIDIA Deep Learning Institute

• Deep Learning Fundamentals for Computer Vision	August 2018
• Modeling Time Series Data with RNNs in Keras	April 2019

### Intel AI Academy

• Deep Learning 501	September 2018
• Time Series Analysis	February 2019

*\*References available upon request*