Xiangyong Luo

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PROFILE/OBJECTIVE

Results-driven, detailed data scientist in Business Intelligence Department with 4 years' extensive experience in research and work of statistics, ML, Manufacture Execution System (MES) data infrastructure built-up, and project management. A proven technical lead with leadership, project management, trouble-shooting and excellent interpersonal skills involved in software development, data analysis and customer-facing business.

EDUCATION

Ph.D. Candidate in Civil Engineering | University of Wisconsin-Milwaukee   Milwaukee | Fall 2018-Present
- ❖ Emphasis: Transportation and Municipal Engineering
- ❖ GPA 3.714/4.0

Master's / Certificate for Geographic Information System | UWM   Milwaukee | Fall 2017-Winter 2019
- ❖ GPA 3.704/4.0

Master's Degree in Civil Engineering | University of Wisconsin-Milwaukee   Milwaukee | Fall 2017-Summer 2018
- ❖ Emphasis: Transportation and Municipal Engineering
- ❖ GPA 3.7/4.0

Master's Degree in Urban Transportation | Shanghai University of Engineering Science |Shanghai | Fall 2015-Spring 2020
- ❖ Emphasis: Vehicle Engineering
- ❖ GPA 3.3/4.0

Bachelor's Degree in Mathematical and Physics | Anhui Jianzhu(Architecture) University HeFei | Fall 2011-Summer 2015
- ❖ Emphasis: Applied Physics
- ❖ GPA 3.0/4.0

PROFESSIONAL JOB EXPERIENCE

Lead Data Engineer | Foxconn Industrial Internet   Mount Pleasant | Feb 2022 - Present
- ❖ Technical Lead (maintain/review team codes), products/requests design and implement
- ❖ DM2(Data Monitoring and Decision-Making System): Central Business Intelligence (G-L10 & L10 & L6)
- ❖ Design and develop the real-time industrial dashboard (Django & Tableau & Flask-Plotly-Dash) to help the line supervisors and leaderships monitor the manufacture process and quality, which reduces the losses of 10.2% raw material, reduce the overall SMT defect incidence by 12.7%, expedite the testing cycle time by 17.3%, increase the overall First Pass Yield (FPY) by 9.3%.
- ❖ Design and develop the real-time Energy Monitor (mainly electricity and natural gas) dashboard to offer forecasting solution to save cost, which helps the facility team to optimize the on-peak and off-peak KWH consumption and cut 17% of the office energy utility and 14.3% production energy utility.
- ❖ Technically offer data solutions covering all manufacture processing for AWS and Google motherboard production (mainly Surface-mount Technology). Offer industrial household operation report such as equipment parameter optimization, defect Triage, repair/rework prediction, Scrap Reconciliation and Automatic Optical Inspection (AOI) Image Analysis.
- ❖ Offer MES support for hundreds of line operators and Test, Quality, Process, Product Engineers indirectly on mass production, production planning, and machine parameter optimization.
- ❖ Develop an GUI app to support data analysis for production and quality team using PyQT5 platform, which allows the internal teams to work on simple analysis by just clicking without any programming background.
- ❖ Using Gitlab for version control across all software development.

Data Engineer | Foxconn Industrial Internet   Mount Pleasant | June 2021 – Dec 2021
- ❖ HRMS (Human Resource Management System): Help HR make universal name tag (with QR code) and store their company information.
- ❖ G-L10 / L10 Dashboard design and implement Phase 1
- ❖ Business process automation

❖ Bonepile root-cause analysis

Teaching Assistant | University of Wisconsin-Milwaukee   Milwaukee / Sept 2019 – May 2022
❖ Transportation Planning and Operations (Spring 2019)
❖ Statics (Fall 2019)
❖ Computer Based Engineering Analysis (Spring & Fall 2020)
❖ Engineering Surveying (Spring 2021)
❖ Statistics (Fall 2021 & Spring 2022)

Internship | Ji-Nan Urban Transportation Research Center   Ji-Nan | June 2018 – Aug 2018
❖ Transportation Big Data Analysis
❖ Traffic Microscopic Data Collection and Processing

Research Assistant | University of Wisconsin-Milwaukee   Milwaukee / Sept 2017 – June 2018
❖ Transportation Planning and Operations

Instructor | Shanghai University of Engineering Science   Shanghai | Sept 2015 – June 2017
❖ Transportation in SUES: dealing with students' daily affairs.

Teacher | Shanghai University of Engineering Science   HeFei | June 2016 – Dec 2016
❖ Part-time Teacher: transportation / vehicle basics

Laboratory Assistant | Shanghai University of Engineering Science   Shanghai | March 2016 – Sept 2016
❖ Laboratory Assistant: equipment operation and maintenance

Volunteer | Anhui Jianzhu University   Anhui / Sept 2011 – June 2015
❖ As a Volunteer for China Robocop Contest 2017 ("Outstanding Volunteer")
❖ As a Volunteer Teacher in Poor Remote Areas: totally 100 students from grade 1-5 in primary school.
❖ Part-time Teacher in Anhui Light Industrial Technician College (teach 400+ students)

Marathon | HeFei Anhui   HeFei | Dec 2013 – Jan 2014
❖ Hundred Kilometers Marathon
❖ National College of Vocational Education

PROJECTS EXPERIENCE

Center for Urban Transportation, University of Wisconsin – Milwaukee (TA & RA)
❖ Developed Online Analysis Tools for VISSIM Data Transfer
❖ Participated in Several Kinds of Traffic Impact Studies
❖ Developed Application for Connected Vehicles to Improve Safety, Mobility and Environment of Urban Transportation System

Milwaukee Fashion Initiative (MFI) Cluster Analysis (Project Second Contributor)
Mission: the project aims to identify existing fashion-related industry clusters and collaborations that can all be leveraged for future partnerships and funding, ultimately supporting the growth and evolution of a nationally competitive fashion industry centered in Milwaukee
❖ Data Collection and Processing
❖ 2D/3D Visualization
❖ Online Map Visualization

Shanghai Shentong Metro Co., Ltd – Shanghai Metro (Project Main Contributor)
Project titled: Emergency Warning and Evacuation Organization Scheme for Large Passenger Flow in Urban Rail Station
❖ Design algorithm to define large passenger flow

- ❖ Emergency operations when unexpected large passenger flow occurred
- ❖ Dealing with data included: 1. Passengers card data (In and Out) at stations
  2. passenger density at important station locations(stairs, escalators, platforms)

CATS LUHAI (Beijing) Investment Co., Ltd.
Mission: analysis on the cost and operation efficiency of urban public transport
- ❖ Data collection and processing: basic data of operation efficiency, cost regulation item data, income item data
- ❖ Design the customized cost regulation method to output the operation efficiency index of public transport enterprises (lines)
- ❖ Standardized data and batch visualization results

Online Satisfaction Surveying Design and Data Processing (Project Leader)
Mission: to improve bus services, collect passengers' satisfaction data towards bus services from 357 bus lines in JiNan, provincial capital of Shandong (seasonal survey, more than 10,000 classified passengers' data will be collected)
- ❖ Design web satisfaction survey
- ❖ Data cleaning, data format transformation and data deep processing
- ❖ SQL and MySQL programming

Ji'Nan Urban Transportation Research Center (Internship)
- ❖ Transportation Big Data Analysis
- ❖ Traffic Microscopic Data Collection and Processing
- ❖ City BRT Effectiveness Analysis

Rockwell Automation Staff Assignment Optimization(Rockwell Automation 2020)
- ❖ Machine Scheduling online APP
- ❖ 3rd place winner among more than 400 engineers all over the world

Computer GUI APP Development (Developer)
- ❖ Message Parsing System for Hang-gang Metro
- ❖ Student's Grade APP for Fall 2019 UWM Statics Students

Data Visualization (Project Leader)
- ❖ Cloud-Based Traffic Data Visualization Laboratory Design, Implementation and Application
- ❖ Rail & Urban Transit multi-level visualization tools: Passengers Flow, Stations, Vehicles, Lines, Network

Programming Skills
- ❖ Language: Python(expert), MATLAB(previous experiences), ArcGIS(expert), Operation Research(expert),
- ❖ Client Server Technologies and Database(expert): Django, Flask, Dash, NGINX, Redis, Celery, PostgreSQL, MySQL, etc.
- ❖ O.S and Environment: Windows, Linux, IOS, Android, Git/GitLab
- ❖ Demonstrated ability to deal with experiment data through the application of Java, JavaScript, HTML, CSS, VISSIM & other software
- ❖ Data processing and analysis: Pandas, Scikit-Learn, Pytorch, Tensorflow, Excel, TabPy
- ❖ Data visualization: ArcGIS (Online and Pro), QGIS, PowerBI, Tableau, Matplotlib, Plotly, Pyecharts, Folium, Seaborn, Bokeh, Altair

Honors and Awards
- ❖ 3rd Place winner for Rockwell Automation Hackathon Project (24ToCode)   2020
- ❖ Chancellor's Graduate Student Awards   2020, 2019,2018
- ❖ Certificate for Geographic Information System   2019

- 2nd Place winner for National English Competition for College Student (NECCS)   2016
- 3rd Place winner for National Postgraduate Mathematics Contest in Modeling(NPMCM)   2016
- 2nd Place winner for China Graduate Electronic Design Competition(Shanghai)   2017
- 3rd Place winner for China Petroleum Engineering Design Competition(Shanghai)   2017
- 1st Place winner for Excellent Academic Scholarship   2015
- 1st Place winner for CAC League 5 vs 5 basketball(SUES)   2017
- "Man of the Year" Candidate (SUES)   2017