

Michael Wang

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EDUCATION

- **Purdue University** West Lafayette, IN
Master of Science in Industrial Engineering & Operations Research; GPA: 3.94 May 2019 – Aug 2020
Relevant Courses: Deep Learning & Computer Vision, Machine Learning, Data Engineering
- **Purdue University** West Lafayette, IN
Bachelor of Science in Industrial Engineering; GPA: 3.94 May 2016 – Dec 2018

EXPERIENCE

- **NASA Langley Research Center** Hampton, VA
Software Engineering Intern Jan 2019 – May 2019
 - Increased the efficiency of machine learning and uncertainty quantification software by 20% by leveraging high-performance parallel computing resources with Python package mpi4py.
 - Developed the Python package ViPrPy (Visualizing Probability with Python).
 - Practiced test-driven development and Clean Code principles in a major refactor of NASA code for crack diagnosis.
- **Purdue University** West Lafayette, IN
Research and Teaching Assistant Dec 2016 – Present
 - **Research Assistant - CONNPlexity Lab:** Utilize data analysis tools such as principle component analysis (PCA), clustering algorithms, and genetic programming to explore fMRI brain connectivity data.
 - **Teaching Assistant - MATLAB:** Performed live code demonstrations, addressed student questions, and provided meaningful feedback to facilitate learning in a class of 120 undergraduate students.
- **Meijer** Grand Rapids, MI
Labor Analytics Intern May 2018 – Aug 2018
 - Implemented data-driven solutions to the front-end checkout that save \$3.6 million per year across 242 stores.
 - Automated labor department's frequently-used manual processes by creating custom macros in VBA.
- **Summer Undergraduate Research Fellowship** West Lafayette, IN
Research Fellow May 2017 – Aug 2017
 - Created machine learning model that predicts attention span given subject's fMRI data.
 - Presented project in research symposium with an audience of 50 students and faculty.

PROJECTS

- **Indiana Long Term Care Facilities** Jan 2019 – May 2019
 - Used Python packages Beautiful Soup, matplotlib, and cartopy to scrape, compile, and present LTC facility data.
 - Investigated causes of preventable trips from LTC facilities to the ER with machine learning tools in scikit-learn.
- **Pandemic Disease Spread Mitigation** Aug 2017 – Dec 2017
 - Synthesized population of 100,000+ individuals based on public demographic data with a Monte Carlo simulation.
 - Performed clustering analysis using igraph in R to find highly connected target nodes within the population.
 - Simulated 100-day disease spread with MCMC methods and identified optimal policies with decision trees.

AWARDS

- Bob and Ellie Shadley Scholarship in Industrial Engineering
- Purdue Summer Undergraduate Research Fellowship
- Dean's List for all semesters
- Phi Beta Kappa

SKILLS & MISCELLANEOUS

- Python, MATLAB (proficient)
- R, SQL, HTML/CSS, Julia, MS Excel (intermediate)
- Git, Linux, MPI, TDD, GCP, Tableau
- English, Mandarin (native)
- Spanish (conversational)
- Ironman Triathlon 70.3 Finisher