

## Daniel Taylor

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### EXPERIENCE

#### **Cavnue**, Warren, MI

*Senior Machine Learning Engineer*, 2022 — Present

- Leading traffic analysis team
- Moving ML models from architecture to production

#### **General Motors**, Warren, MI

*Principal Artificial Intelligence/Machine Learning Scientist*, 2022

- Technical lead for crowd-sourced map product
- Building large scale spark jobs that run in production
- Lead a group focused on researching the application of tensor networks

*Senior Artificial Intelligence Computer Scientist*, 2019 — 2021

- Helped lead the creation of a map built entirely from telemetry data
- Developed spark jobs to run in a big data production environment
- On-boarded and provided guidance to several new team members

*Artificial Intelligence Computer Scientist*, 2016 – 2018

- Developed solutions in areas of network dynamics, routing and image classification
- Worked alongside software engineers to bring code into production

#### **University of Michigan Center for Integrative Research in Critical Care**

*Data Scientist*, 2018 – 2019

- Built machine learning models to predict patient outcomes and improve care
- Led implementation of a pilot study to measure the efficacy of our model

#### **Ford Motor Company**, Livonia, MI

*Engineering Specialist – Quality*, 2015 – 2016

- Applied engineering principles and analytical techniques to establish and continuously improve manufacturing processes and products
- Implemented interim and permanent corrective actions to resolve quality issues
- Managed statistical process control activities

#### **Stratos Inc.**, Ann Arbor, MI

*Data Analyst*, 2014 – 2015

- Created dashboards containing visualizations of key business metrics
- Set up the infrastructure to carry out analysis of company data

#### **Michigan Aerospace Corp.**, Ann Arbor, MI

Worked on data analysis, algorithm development for pattern recognition and mathematical models solving inverse problems for data extracted from experiments.

*Research Scientist*, 2013 - 2014

- Developed algorithms to solve inverse-problems resulting from LiDAR
- Developed pattern recognition software for a signal intelligence program

## PATENTS

- Taylor, D.; Titsworth, M.; Sabeti, E.; Vermillion, S.; “Road Network Mapping Using Vehicle Telemetry Data”, P100907-US-NP filed Jan 22, 2022. Patent Pending
- Sjoding, M.; Taylor, D.; Gillies, C; Ward, K; “Computer Vision Technologies for Rapid Detection of the Acute Respiratory Distress Syndrome”, 17/082,145 filed Feb 8, 2019. Patent Pending
- Gillies, C.; Taylor, D.; Ward, K; “Predicting Intensive Care Transfers and Other Unforeseen Events Using Machine Learning”, 62/770,315 filed Nov 21, 2018. Patent Pending
- Lingg, A. J.; Bulan, O.; Clifford, D. H.; Taylor, D.; Cool, B. J.; “Systems and Methods for Detection, Classification, and Geolocation of Traffic Objects”, P043107-US-NP filed Nov 29, 2017. Patent Pending

## PUBLICATIONS

- Gillies, Christopher E., Daniel F. Taylor, Brandon C. Cummings, Sardar Ansari, Fadi Islim, Steven L. Kronick, Richard P. Medlin, Kevin R. Ward, “Demonstrating the consequences of learning missingness patterns in early warning systems for preventative health care: A novel simulation and solution.” *Journal of Biomedical Informatics* Volume 110, (2020). <https://doi.org/10.1016/j.jbi.2020.103528>.
- Sjoding, Michael W, Daniel F. Taylor et al. “Deep learning to detect acute respiratory distress syndrome on chest radiographs: a retrospective study with external validation.” *The Lancet Digital Health* Volume 3, no. 6 (2021): e340 - e348.

## EDUCATION

### **May 2011 - April 2013, Eastern Michigan University**

M.A. Mathematics, GPA: 4.00/4.00

### **September 2009 – April 2011, Eastern Michigan University**

B.S. Mathematics and Physics, GPA: 3.72/4.00