Mancelona, Michigan, USA

Tyler Mick

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WORK EXPERIENCE

Studies and Analyses Division, HQ Air Force Materiel Command, Wright-Patterson AFB, Ohio
Analyst Intern, **MAY 2011 – JULY 2011, MAY 2012 – JULY 2012**

- Provided critical age/flying hour data to a major acquisition program office to ensure the Air Force obtained the greatest value in a cross-Service aircraft trade with the Army.
- Compiled a research summary on Readiness-Based Sparing to help urge Air Force policy-makers to more strictly mandate RBS use, a policy that, given industry parallels, will support inventory reductions of 40–50% over previous sparing methods, with no loss of performance. *Paper published on DTIC*

Studies and Analyses Division, HQ Air Force Materiel Command, Wright-Patterson AFB, Ohio
Operations Research Analyst, **JUNE 2013 – FEBRUARY 2017**

- Provided concrete financial and operational analysis to a major acquisition program supporting a $3 billion reduction in the life cycle cost estimate for initial spare parts with no reduction in system performance.
- Led the analysis portion of an Inspector General briefing eventually presented to AFMC's (4-star) Commander. In the process uncovered and developed solutions for Air Force–wide inspection data collection problems.
- Built a linear regression model in R to investigate which factors were affecting the timeliness of Air Force Research Laboratory acquisitions, and reported the results to AFRL's (2-star) Commander.
- Personally briefed AFMC's (3-star) Vice Commander to prepare him to sit on the steering group of RAND Corporation's Air Force–focused study board.
- At own initiative, advised AFMC Public Affairs on their Facebook strategy, taking AFMC's Facebook page from stagnant growth to a 60% increase in followers over the following eight months. *Paper published on DTIC*
- 2014 HQ AFMC Category I Civilian of the Year

Entrepreneur & Rideshare Driver – **FEBRUARY 2017 – FEBRUARY 2020**

Freelance Web Developer – **FEBRUARY 2020 – PRESENT**

- In addition to building valued full-stack JavaScript applications for clients, developed a love of coding that has now led me back to the analysis world via data science and machine learning.

PORTFOLIO

- **Loan risk prediction model using neural network regression**, built with Python and TensorFlow/Keras.
- **Loan risk prediction API**, written in Python using Flask, serving the above TensorFlow model.
- **14 other API/microservice demos** written in both Python and Node.js, most connected to MongoDB databases.
- **Interactive JavaScript data simulation** querying up-to-date COVID-19 data, built with Vega-Lite and Data-Forge.
- **Open-source contributions** to pandas, freeCodeCamp, and others.

EDUCATION

Bethel University (formerly Bethel College)**, Mishawaka, Indiana**
B.S. in Mathematics, Minor in Music, **AUGUST 2009 – MAY 2013**

- **GPA**: 3.88/4.0, *magna cum laude*; **SAT**: 2310/2400 (800 Math, 790 Writing, 720 Critical Reading)
- Coursework included multivariate calculus, linear algebra, differential equations, probability & statistics, computer programming (C++, Java), mathematical modeling (using R), abstract algebra, real analysis, and complex analysis.
- 2010 Ronald Bennett Mathematical Sciences Award; 2013 Outstanding Mathematics Undergraduate