## Tyler Mick

### RELEVANT EXPERIENCE

## **Self-Employed**

Freelance Web Developer & Data Scientist, MARCH 2019 - PRESENT

- 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.
- Responsive server-rendered real estate listing page with scheduling APIs, built with Next.js, React, and Firebase.
- <u>Multi-page static-optimized portfolio website</u> built with Next.js and a custom responsive React Bootstrap design.
- <u>2 custom React hooks</u> written in TypeScript, published to npm, and tested with Jest and Enzyme.
- Open-source contributions to pandas, R, Live, freeCodeCamp, Next.js, and others.

### Internet Entrepreneur, FEBRUARY 2017 – FEBRUARY 2019

- Created a consumer product line and built an online store, customizing its Liquid/HTML template.
- Bootstrapped a peer-to-peer car rental business to over 10% net profit margins by leveraging online marketplaces.

# 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. Paper available upon request
- 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. <u>Paper published on DTIC</u>
- 2014 HQ AFMC Category I Civilian of the Year

## Analyst Intern, MAY 2011 - JULY 2011, MAY 2012 - JULY 2012

- 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. <u>Paper published on DTIC</u>
- 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.

#### **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