Sioux Falls, South Dakota, USA

Tyler Mick
Data Engineer

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RELEVANT EXPERIENCE

Self-Employed
Freelance Web Developer & Data Scientist, **MARCH 2019 – PRESENT**

- **20 API/microservice demos** written in both Python and Node.js, using both SQLite and MongoDB databases.
- **Loan risk prediction REST API**, written in Python using Flask, serving a trained TensorFlow model.
- **Implementations of 12 common data structures** in C, TypeScript, and Python.
- **Responsive server-rendered real estate listing page** with scheduling APIs, built with Next.js and Cloud Firestore.
- **Next.js + MongoDB local authentication boilerplate** with a serverless architecture, hashing passwords with bcrypt.
- **Neural network loan risk prediction model** that outperforms LendingClub's loan grading, built with TensorFlow.
- **Interactive JavaScript data simulation** querying up-to-date COVID-19 data, built with Vega-Lite and Data-Forge.
- **Open-source contributions** to TensorFlow, pandas, R_t Live, freeCodeCamp, Next.js, Faithlife, 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*
- At request of AFMC's Financial Management office (facing unexpected last-minute deadline), quickly coded a software tool in Excel VBA to summarize data for a Pentagon-level report. Tool now saves 8 man-hours per month.
- 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

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. *Paper published on DTIC*
- 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