# Matthew Murphy

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January 13, 2019 http://murphymatthew.com

#### EXPERIENCE

• Facebook Menlo Park, CA

Software Engineer (Machine Learning)

August 2018 - Present

- Developing highly scalable classifiers and tools leveraging machine learning, data regression, and rule-based value models
- $\circ \ \ \text{Suggesting and delivering new ranking directions for video on feed, while delivering ranking optimizations}$

• Facebook Menlo Park, CA

Software Engineer Intern

Summer 2017

- Engineer on Feed Machine Learning working on video chaining
- Build a database of new user-behavior features extracted from web front end (PHP and Python)
- Refresh and retrained ranking model with newly extracted features (C++ and Python)

#### • MIT Lincoln Laboratory

Lexington, MA

Research Intern

Summers 2015, 2016

- o Trained SVM and Random Forest-based models to E. Coli viability on degrees of genetic recoding
- Parallelized computationally expensive 3D biological modeling software on LLGRID large compute cluster
- Organized and lead team of other intern engineers to begin development on wearable technology for short range encrypted data transfer

## • Grinnell College AppDev

Grinnell, IA

Android Developer

Oct. 2015 - Dec 2016

- o GrinnellDB an android application serving as a student database
- Events an android application for on campus events

#### **EDUCATION**

• Grinnell College

Grinnell, Iowa

B.A. Computer Science, with Honors, Major GPA: 3.97, Cum GPA: 3.72

Aug. 2014 - May 2018

- Academic Honors and Awards
  - o Grinnell College Trustee Honors Scholar Merit Scholarship
  - o HackMIT 2017 Machine Learning Community Prize Sponsored by Baidu
  - o HackMIT 2016 Best project under 4Kb Sponsored by Datto

### • Selected Coursework

o Operating Systems, Bayesian Statistical Analysis, Comp. Vision, Analysis of Algorithms, Real Analysis

#### **PROJECTS**

- RNN-LSTM-CTC for Robust Reading: Implement a lexicon-restricted CTC decoder within TensorFlow backend to optimize predictions for ocular text recognition tasks in which a predefined dictionary is known. (C++, Python)
- A Framework for Predicting Design Failures in Engineered Genetic Codes: Predictive modeling of E. Coli viability in response to various degrees of genetic recoding doi: https://doi.org/10.1101/363812.

### TECHNICAL SKILLS

• Languages: C++, Python, Haskell, Hack/PHP, R

Technologies: Presto, Hive, SQL, Pytorch

### PERSONAL INTERESTS

- Grinnell College Varsity Cross Country, Track & Field: Placed multiple times in conference meets
- Pan Massachusetts Challenge: 6 year rider, and raised over \$6,000 for Dana Farber Cancer Research Int.