Robert Hwang

robert.t.hwang@gmail.com | 914-714-1305 | https://github.com/rhwang10 | https://rhwang10.github.io

EDUCATION

Swarthmore College, Swarthmore PA *May 2018*
Bachelor of Arts, Computer Science
Relevant coursework
- *Computer science:* Bioinformatics, Data structures and Algorithms, Machine Learning, Computer Systems, Computer Animation, Operating Systems, Theory of Computation, Programming Languages
- *Mathematics:* Statistical Methods, Single Variable Calculus, Linear Algebra, Discrete Mathematics
- *Biology:* Molecular Ecology and Evolution, Biochemistry, Organismal/Population Biology, Molecular Biology

Relevant Skills
- *Languages:* Python (Proficient), SQL (Familiar), Javascript (Familiar)
- *Frameworks and Tools:* Apache Airflow, Prometheus, Grafana, React, Django, Docker, Elasticsearch, PostgreSQL, Git

ENGINEERING EXPERIENCE

Software Engineer, **Astronomer, Cincinnati OH** *August 2018 – Present*
- Greatly improved the Apache Airflow on Kubernetes monitoring stack, by 1) Deploying a service to the platform that communicates with the Kubernetes API and 2) Writing PromQL queries to implement Kubernetes resource and state information monitoring dashboards in Grafana
- Deployed an EFK (Elasticsearch FluentD Kibana) logging stack for the enterprise platform to collect streaming logs from all Airflow components
- Built a log handler for running Apache Airflow on Kubernetes to improve the efficiency and uptime of the platform by removing the need for persistent worker storage

Software Engineering Intern, **Everywear, New York City NY** *June – August 2017*
- Developed the user page to input preferences on specific outfits against a RESTful API
- Wrote a data ingestion algorithm in Python to isolate key words using the NLTK natural language processing toolkit

DATA ANALYSIS AND RESEARCH EXPERIENCE

HHMI Research Assistant, **Mountain Lake Biological Station, Pembroke VA** *June – August 2016*
- Examined covariance among several quantitative social network metrics to investigate the effects of interactions among conspecifics on individual fitness
- Applied statistical modeling in R to examine a hypothesis concerning social niche construction as a consistent phenomenon across populations

PROJECTS

New York Times Top News Dashboard (React, Javascript) https://github.com/rhwang10/news-dashboard
- Runs a search query against the New York Times API when a user stops typing, and displays articles based on section

Cheetah (Django, Python) https://github.com/rhwang10/cheetah
- Web application with a fully implemented user authentication system to authenticate Spotify users and import their playlist data into a Postgres backend

newsSpot (Vue.js, Javascript) https://github.com/rhwang10/newsSpot
- News web application to provide a UI for users to connect recently published news articles to related Reddit threads

Classifier Based Neural Networks (Python) https://github.com/rhwang10/Classifier-based-Neural-Networks
- Cleaned and preprocessed data, and implemented a modular classifier-based neural network in Python using SciKit-Learn, SciPy, and NumPy libraries
- Implemented a sequential neural network with a sigmoid activation function and the RMSProp optimizer