Jenn (Hyun Joo) **Hwang**

WWW.JENNHWANG.ME

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Skills

- Programming: C, Python, Matlab, JavaScript, HTML/CSS, Bash, Git, Cluster Computing, LaTeX
- Web development: Flask, Node/Express, APIs
- Data Science: Pandas, Scikit-learn, PostgreSQL, MongoDB, Scrapy
- Fluent in Korean and English

Experience

Fellow — *New York, NY*

INSIGHT DATA SCIENCE — *Jan 2018 - Present*

- Developed a tool for game developers to estimate their game expansion success on the online gaming platform Steam
- Deployed this tool as a web application that makes a real-time prediction using Random Forest whether or not a user will like the new expansion based on their owned game content features
- Scraped the Steam web store to gather information on games and game reviews using Scrapy and the Steam web API
- Designed a PostgreSQL database schema to store scraped information and performed queries to aggregate information across tables

Full-stack Developer — *Remote*

ACADEMME — *Sep 2017 - Oct 2017*

- Developed an advanced job search using multiple APIs to construct a best path scenario from a customer's current position to their desired position within a Node/Express MVC application
- Built a real-time data pipeline that pulls user information from MongoDB and uses that information to aggregate, manipulate, and dynamically display information pulled from 3rd party APIs
- Rendered visualizations using chart.js
- Worked in an agile workflow with a team of senior web developers and QA testers to scope, plan, and implement full-stack features

Graduate Researcher — *Philadelphia, PA*

UNIVERSITY OF PENNSYLVANIA — *Aug 2012 - May 2018*

- Generated 3D particle trajectories of bubbles using C, Molecular Dynamics, and cluster computing
- Performed time series analyses using 1-2 gigabyte particle trajectory data sets by programming in C, Python, Bash, and Matlab
- Developed a novel statistical approach that relates the fractal dimension of a trajectory path to the total displacement of particles that provided a new way to think about material flow in the soft matter physics community
- Published results in *Nature Materials*, one of the most cited scientific journals

Personal Projects

Penn Data Science Group (PDSG) — *penndsg.com*

- Co-founded a student organization dedicated to helping students gain practice and skills in data science
- Co-developed the website for PDSG using Jekyll, HTML/Less, and Github pages
- Developed and delivered a Kaggle competition workshop to teach entry level Pandas/Python/Jupyter notebook (jennhwang.me/blog/titanic/)

Predicting the demands of rental bikes — *map-flask.herokuapp.com*

- Created a real-time web application that shows the current number of bikes and docks available at city bike share stations on Google Maps using Flask, Google Map API, and Indego Philly Bike Share API
- Predicted daily rental bike demands using Random Forest based on real-time weather information pulled using the Weather Underground API

Education

University of Pennsylvania — *Philadelphia, PA*

PH.D IN CHEMICAL AND BIOMOLECULAR ENGINEERING — *2012-2018*

University of Washington — *Seattle, WA*

B.S. IN CHEMISTRY, PHI BETA KAPPA, CUM LAUDE — *2007-2011*