Isabelle Lee

Seattle, WA • (206) 707-2265 • lee.isabelle.g@gmail.com • linkedin.com/in/iglee • github.com/iglee

Summary

Data scientist with a background in physics and math.

Technical Skills

Coding	**Database/Tools**	**Machine Learning**
Matlab, Python	SQL (Postgres, SQLite, MySQL)	Hypothesis Testing, A/B Testing
(SciPy, Pandas, TensorFlow)	NoSQL, MongoDB	Supervised & Unsupervised Learning
C++, Java, Fortran, R	AWS, Spark, Hadoop, DigitalOcean	NLP, Recommenders
WebScraping, Git		

Education

Certificate, Data Science — **Galvanize, 2017**

MS, Aeronautics and Astronautics (Fellow) — **University of Washington, 2017**
Core GPA: 3.6, Overall GPA: 3.3

BS, Physics (Honors) and Applied Mathematics — **College of William and Mary, 2014**
Major GPA: 3.8, Overall GPA: 3.3

- **Selected Coursework and Training:** Advanced Mathematical Statistics (**R programming**), Computer Science sequence including **Data Structures and Scientific Computing**, Large Data Survey (**querying with SQL** and using **Python**, **Github**, and **DigitalOcean**)

Professional Experience

Data Scientist Intern — November, 2017 - February, 2018
Citybldr

Graduate Researcher in Computational Fluid Physics and Turbulence — 2016 - Present
University of Washington, Aeronautics and Astronautics

- Using computational methods for Particle Tracking Velocimetry turbulence application, primarily with **Matlab** statistical and optimization toolboxes.
- Generating and analyzing randomized datasets and developing mechanisms to **filter, statistically fit (regression, spline smoothing, global search, constrained fits with convex optimization), and organize data points with visualizations**. Working with the WRF Data Science Studio at University of Washington for researching data optimization.

Data Science Student — 2017 - 2017
Galvanize

- Built an around-the-world, long term travel **recommender system**, Outrun Jules Verne.
- Webscraped million reviews, images, locations, and attractions from tripadvisor.com on **AWS** and built a **Spark** dataset. Used **PySpark - NLP pipeline** to extract features from reviews.
- Used **NLTK tokenization and LDA** to build recommendation based on user selected features.
- Deployed an interactive webapp to take user input and recommending on outrunrulesverne.com

Undergraduate Researcher in Plasma Physics — 2011 - 2014
College of William and Mary

- Analyzed data for Culham Centre for Fusion Energy (Culham, Oxford) tokamak camera image data.
- Found boundary patterns of plasma instability by **extracting signal data from noise with visualization using fourier filtering algorithms and gradient descent method with Matlab, C++, and Python.** Conference publication and presentation at American Physical Society.

Undergraduate Researcher in Atomic Physics, (Honors thesis) — 2010 - 2014
College of William and Mary

- Computationally modelled Feshbach Resonances in ultracold atoms with **Matlab and Python**.

Theoretical Physics Intern — 2013
National Fusion Research Institute, Daejeon, South Korea