

Patrick Old

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EDUCATION

UNIVERSITY OF WASHINGTON

Bachelors of Science: Informatics (GPA: 3.7/4.0)
Bachelors of Science: Oceanography (GPA: 3.7/4.0)
Coursework: Data Science, Modeling, Software Engineering

Seattle, WA
Sept 2017 - June 2019
Sept 2015 - June 2019

PROFESSIONAL EXPERIENCE

NIKE

Lead Data and Application Engineer

- Created **machine learning and natural language processing models** in Python (**TensorFlow**) to analyze COVID-19 data, output in a daily report for **Nike's Executive Leadership Team (ELT)**, and **Nike's Corporate Incident Management Team (CIMT)**.
- Created an **ensemble machine learning model** to classify the relevancy of news alerts for Nike's business continuity group.
- Saved company **\$10,000 in one week** by actively taking the place of a vendor and creating a custom **ArcGIS GeoEvent** processor with **Java** to transform **geospatial data** to Chinese map projections to assist with international counterfeit product detection.
- Utilized **data mining** with **APIs** and web scraping in a rapid manner to counter against potentially harmful threats to Nike.
- Primary languages and tools were **Python, TensorFlow, SQL, Tableau, Snowflake, Airflow DAGs, AWS EC2, and AWS Athena**.

Beaverton, OR
March 2020 - Present

Machine Learning Engineer

- Member of the **Advanced Analytics and Machine Learning group** supporting the **Connected Product TI**.
- Created an **ETL pipeline** with **Airflow** and Python scripts to analyze RFID scanning activity at Nike Direct stores internationally to improve product inventory tracking capabilities for the **Connected Product TI**. Displayed in a Tableau dashboard.
- Primary languages and tools were **Python, SQL, Tableau, Airflow DAGs, AWS S3, and AWS Athena**.

UNIVERSITY OF WASHINGTON

Data Scientist / Researcher

- Implemented **Jupyter Notebooks** and **Python scripts** on a **Linux** server to analyze and compare the physical oceanographic characteristics of the best **climate models** in the world with actual data measurements taken over the last 50 years.
- Research funded by **NASA** and the **National Science Foundation (NSF)**.
- **Published** as a **first author** in Geophysical Research Letters in October 2019 (<http://patrickold.me/grl-cmip5>).

Seattle, WA
March 2016 - June 2019

Data Science Course Creator and Instructor

- **Created and instructed** two new courses focused on data science in the field of oceanography to **undergraduate students** in the University of Washington, School of Oceanography.
- **Taught** students how to use **numpy, pandas**, and more to analyze complex oceanographic data.
- **Collaborated** with a team of experienced professors to analyze and improve my teaching skills and course content.

Oct 2018 - April 2019

WASHINGTON STATE OPPORTUNITY SCHOLARSHIP

Scholar Lead

- **Mentor** of 20 recipients of the Washington State Opportunity Scholarship, helping them navigate their first year of college.

Vancouver, WA
June 2019 - May 2020

INDEPENDENT PROJECTS

- **Data Science:** Worked with a team of designers to investigate creating product designs using **generative adversarial networks**.
- **Data Science:** Created a **deep convolutional neural network** to classify digits and deployed online (<https://bit.ly/digitML>).
- **Data Science:** Created a **random forest model** to predict the survivors of the Titanic achieving near 80% accuracy (Kaggle).
- **Software Development:** Developed a full stack messaging **web application** during 12-week project using **Golang and React** from scratch. Implemented secure user login, **REST APIs** and web sockets. Deployed using **Docker and AWS EC2**.

COURSEWORK AND CERTIFICATIONS

- **Google TensorFlow Developer:** Certificate exam by Google (<http://patrickold.me/tf-dev>)
- **TensorFlow in Practice:** Coursera Course Certification (<http://patrickold.me/tf-ip>)
- **CSE 416:** Introduction to Machine Learning at the University of Washington

LEADERSHIP AND HONORS

- **First ever student graduation speaker** for the University of Washington, School of Oceanography June 2019
- Received **\$30,000 in academic and research scholarships** at the University of Washington. Dec 2018
- Received **annual deans list honors three years** at the University of Washington. Dec 2018