# Garrick Suemith

Data Scientist and educator with 3 years' experience in computational modeling, 2 years' experience in teaching, and 1 year project experience in Machine Learning

7807 Wintercress Ln
Springfield, VA 22152
**(703) 407-9779**
**WEBSITE:** www.suemith.com
**EMAIL:** garrick@suemith.com
linkedin.com/in/garrick-suemith

## PROJECTS

### CNN Feature Visualization — *SharpestMinds Mentorship*

- Plotted activation maps of layers within pre-trained CNN's
- Chose images that resembled recognizable objects and fed the model images to verify that the layer was activated by the objects
- Developed app on fastai platform

### Income Level Classifier — *Udacity Project*

- Classified California residents as potential donors from census income-level data
- One-hot encoded, normalized data, and fit it on several sklearn models
- Found AdaBoost to have best performance, accuracy, and F-score
- Used grid search to find optimal parameters with accuracy of 86.5% on test set

### Transfer Learning Image Classifier — *Udacity Project*

- Classified 100+ flower species from dataset of ... color photos using Pytorch
- Trained a pre-trained resnet model from torchvision with custom final layer
- Wrote command line scripts that can create, train, and test any torchvision model and customize the final layer.

### NLP Disaster Response Pipeline — *Udacity/Figure Eight Project*

- Built web app for disaster responders to evaluate messages from disaster areas
- ETL pipeline tokenizes messages and saves data to sqlite database
- ML pipeline combines CountVectorizer, Tfidf, and Random Forest

## EXPERIENCE

### Physics Teacher — *Bishop O'Connell High School*

AUGUST 2017 - AUGUST 2019 - ARLINGTON, VA

Taught Honors Physics and Physics-based Engineering. Introduced computational modeling to mostly first-time programmers.

### Youth Director — *Blessed Sacrament Catholic Church*

SEPTEMBER 2016 - MARCH 2019 - ALEXANDRIA, VA

Coordinated service, educational, and athletic programs for middle and high school youth. Built and maintained websites for promoting programs and registration pipelines.

### Lab Intern — *George Mason University Nuclear Resonance Lab*

MAY 2013 - DECEMBER 2013 - FAIRFAX, VA

Aided in the conversion of nuclear resonance magnetometer to femtotesla-sensitive gradiometer. Designed and implemented electromagnet to distinguish spatial channels within magnetometer.

## SKILLS

**Python, Java, C/C++, HTML**

**SQL, Git, Pandas, Numpy, Flask, Scikit-Learn, PCA, Fast.ai, PyTorch, NLP, ETL Pipelines**

**Statistics, Machine Learning, Neural Networks, OOP, Linear Algebra, Advance Calculus, Complex Analysis, Experiment Design, Physics Modeling**

## EDUCATION

**Physics** - *University of Virginia*

**COURSEWORK: Quantum Mechanics, Statistical Mechanics, Electrodynamics, Computational Physics**

## CERTIFICATIONS

**Intro to Machine Learning** - *Udacity Nanodegree*

**Data Science** -*Udacity Nanodegree*