

# Michael F Vertuli

# Software Engineer

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#### About

Architecting big data pipelines, deploying machine learning models, and extracting insights with Scala, Spark, Python, and SQL.

## Experience

## Factual Software Engineer

March 2019 - April 2020 (1 Year, 1 Month)

### https://www.factual.com

- Architected, implemented, deployed, and maintained large business-critical data pipelines in Hadoop with Hive, SQL, and Airflow.
- Collaborated cross-functionally with product managers and marketing to deliver data dashboards and visualizations with Django in Python.
- Designed and deployed predictive machine learning pipelines using Spark in Scala to model audience demographics and customer segmentation.
- Conducted regular data investigations, regularly releasing Jupyter notebooks and giving company presentations.
- Promoted twice within my first year and volunteered with recruitment efforts and engineering mentoring program.

# Self Employed

**Private Tutor** 

January 2017 - March 2019 (2 Years, 2 Months)

#### https://tutor.vertuli.com

 Worked with dozens of college and high school students to improve confidence and skills with math and physics between Washington, DC and Los Angeles, CA.

# Landon School Mathematics Teacher

August 2016 - January 2017 (5 Months)

### https://www.landon.net

 Redeveloped math syllabus to emphasize statistical thinking, real-world modeling, and practical applications, and coached the 9th grade boys' soccer team.

## https://newton.vertuli.com

- Founded a Shanghai-based education consultancy and lead a team of counselors, marketers, and account managers serving Shanghai's top students aiming to study abroad in the U.S.
- Quickly pivoted from providing test preparation to fill a niche demand for long-term, holistic, and honest academic planning and guidance beyond test scores.
- Developed data scraping tools to collect and process public application profiles and admissions data into Salesforce, helping inform our staff and track student metrics.

# **Shanghai Normal University**

July 2009 - July 2011 (2 Years)

Physics Teacher

http://en.ulink.cn/Shanghai/

- Standardized department assessments and developed system to track and report student metrics.
- Assisted IT with implementing its first school management system (SIMS) and Moodle integration.

Education

## **Colorado State University**

2008 - 2008

Graduate Studies

### **Astrophysics**

Analyzed fluorescence detector calibration data from the Pierre Auger Cosmic Ray Observatory using Python, MATLAB, and Mathematica to find anomalies.

# Pennsylvania State University

2006 - 2008

Bachelor

#### Physics, Mathematics

Designed, collected, and analyzed data using Python and ROOT from an experiment measuring angular dependence of fluorescence scattering from a radioactive source.

## Wilkes University

2004 - 2006

Undergraduate Studies

## **Electrical Engineering**

Tutored physics, assisted with undergraduate mechanics course, and imaged metallic whiskers with scanning electron microscopes.

Volunteer

# Heart to Heart Shanghai

**Sponsor and Fundraiser** 

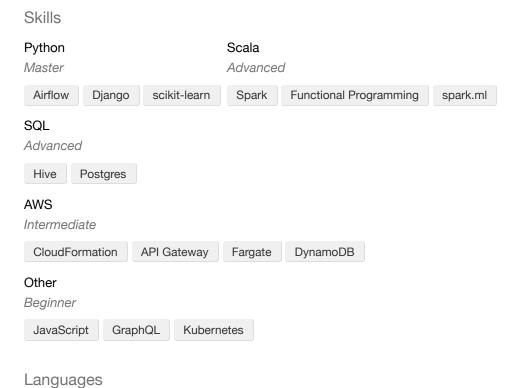
English Chinese

Intermediate

Native



Raised funds for two child heart surgeries at annual student Battle of the Bands



Cebuano

Basic