Emilia Wieczorek

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EDUCATION

Dec. 2014   **Bachelor of Arts, Applied Mathematics**
                  University of California, Berkeley, CA
- Phi Beta Kappa, GPA 3.88
- LEADS Scholar – The Leadership Excellence through Advanced Degrees program prepares promising students for advanced education in science, technology, engineering, and mathematics. This includes research during the academic year and summer as well as professional and scientific society meetings.

May 2012   **Associate of Science (Transfer), Mathematics**
                  Palomar College, San Marcos, CA

EXPERIENCE

***Marketing Data Services Project Manager*, UBS**   **April 2018-present**
- Back-end engineer responsible for full ETL workflows of UBS's marketing data.
- Implemented various social media APIs (Facebook, Instagram, LinkedIn, Twitter), online insights APIs (Adobe Analytics), and project management APIs (Jira) into the ETL pipelines.
- Developed new features for UBS's internal web application using full-stack Python environment (Python, Tornado, PostgreSQL, and Docker).

***Senior Programmer Analyst*, Mathematica Policy Research**   **November 2017-March 2018**
- Worked with large data sources using SAS, SQL, and Python to develop performance measures based on cost and quality of care for evaluating the effectiveness of numerous health care policies.
- Articulated findings and worked with researchers to adjust specifications and code as interim results were found.
- Mentored programmers and lead small programming teams.

***Programmer Analyst*, Toyon Associates, Inc.**   **June 2015-November 2016**
- Developed and tested new features for Toyon's cost report preparation web application in PHP and JavaScript/jQuery with MySQL storage.
- Responsible for database support and deployment to Amazon Web Services (AWS).
- Responsible for creation of MySQL databases and schemas, and regular ETL processing of large-scale data sets including hospital patient encounters, financial claims and reimbursements, and patient eligibility information from the State of California.
- Created advanced macro for lookup and retrieval of pricing information.

***Research Assistant*, University of California**   **May 2013-May 2015**
   UC San Francisco (Sept. 2014-May 2015)
- Identified and collected relevant data available on various platforms.
- Selected genetic regions for analysis where the available data was of the best quality.
- Utilized machine learning algorithms to identify genetic factors that modulate the presentation and progression of a disease.
- Developed Python scripts for computing the Multiple Sclerosis Genetic Burden (MSGB) score.
- Used 23andMe API to develop MSGB web application tool utilizing Django web development framework.

   UC Berkeley (May 2013-Dec 2014)
- Used statistical learning to detect tracts of introgressed Neanderthal ancestry in genomic sequence data of modern humans.
- Simulated data for testing and benchmarking of the developed model (Python).
- Interpreted and visualized results using statistical software (R).
- Presented research methodology and results at two conferences.

UC Los Angeles (Jun 2014 - Aug 2014)

- Developed theory for applying the Akaike Information Criterion (AIC) to large-scale regression problems.
- Examined sparse signal recovery on simulated data comparing AIC to lasso-based model selection using Fortran and Python.
- Wrote a research paper at the end of the program and presented a poster at a conference.

PROFICIENCIES AND SKILLS

- Programming languages: Python, SQL (MySQL, PostgreSQL), PHP, JavaScript, HTML, CSS, Unix command line, Git, Java, R, Matlab.
- Solid experience in MS Excel, VBA, and Access.
- Strong quantitative background with the ability to handle large data sets and present results.
- Knowledge of statistical modeling, machine learning, and data mining concepts, experience with solving problems using these methods.
- Ability to learn quickly, with meticulous attention to detail and commitment to timely completion.