Reuben Britto, Ph.D.

reubritto@gmail.com | 530 351 8232 | reubenbritto.com | Seattle, WA

EXPERIENCE

EVEN Financial - *fintech startup acquired by* **MoneyLion** *in Feb 2022*   *New York, NY*

Senior Machine Learning Engineer   *Jan 2021 - Present*

- Architect and lead developer of our model lifecycle platform (think: *mlflow* but internal). This platform consists of easy-to-use python libraries that enable data scientists to develop and deploy models from their Jupyter notebooks, CI/CD pipelines for automated model deployments/retrains, offline to online feature serving, etc. This infrastructure has dramatically improved our velocity, increasing the number of models in production 10x.

- Adding functional improvements such as multi-model request routing, feature engineering and caching, prediction logging, etc. to our model serving microservice (scala-play) which serves upwards of 5000 req/min at sub 20 ms latency (p99).

- Trained and deployed models ranging from logistic regression to decision trees to neural networks for real time recommendation of financial products/offers to our users.

- Building "frontend for models" webapps that empower data scientists and partner managers to automatically monitor and optimize model performance for their clients through intuitive UIs, improving client monetization and NPS metrics.

E^{x}ponent® *failure analysis firm*   *Menlo Park, CA*

Materials Engineer (Data Science & Machine Learning)   *May 2019 - Jan 2021*

- Built automated inference pipelines. Example: a k-means classification pipeline that analyzed post-mortem chemical characterization data reports and sorted catalysts into root cause categories, reducing human-hours to analyze each catalyst from hours to < 1m.

- Led teams of 3-4 performing experimental design and statistical reliability engineering for diverse clients in the consumer electronics industry, managing $10k - $100k projects.

ExxonMobil Research and Engineering   *Clinton, NJ*

Computational Materials Intern   *Apr 2018 - Sep 2018*

- Developed a selective diffusion zeolite detection algorithm and deployed it in a high throughput screening pipeline that discovered a promising new zeolite resulting in 2 US patents.

Stanford University   *Palo Alto, CA*

Computational & Experimental Researcher, Jaramillo Lab   *Sep 2013 - May 2019*

- Predicted novel materials to improve corrosion stability of solar fuels devices using machine learning and computational methods such as density functional theory and principle component analysis. Tested materials in collaboration with the National Renewable Energy Laboratory.

PROJECTS

- I imagine myself as a wannabe Copernicus and built a React-based webapp to compute the position of the sun in the sky at any location in the world on any date and time. Check it out here: reubenbritto.com/solartracker

ABOUT ME

I'm a Machine Learning Engineer who loves to unlock the potential of data scientists. I can do the other 90% needed to deploy real-world machine learning and AI systems.

EDUCATION

Stanford University *Palo Alto, CA*
Ph.D. & M.S. Chemical Engineering
2019

Caltech *Pasadena, CA*
B.S. Chemical Engineering
2013

AWARDS & HONORS

National Science Foundation - Graduate Research Fellowship

American Institute of Chemical Engineers - Chapter President

Tau Beta Pi Honor Society

PUBLICATIONS & PATENTS

Interfacial engineering of gallium indium phosphide photoelectrodes for hydrogen evolution with precious metal and non-precious metal based catalysts.
Britto, Young, Yang, Steiner, LaFehr, Friedman, Beard, Deutsch, Jaramillo.
***J. Mater. Chem. A**, 2019, 7, 16821-16832*

Molybdenum Disulfide as a Protection Layer and Catalyst for Gallium Indium Phosphide Solar Water Splitting Photocathodes
Britto, Benck, Young, Hahn, Deutsch, Jaramillo.
J. Phys. Chem. Lett. 2016, 7, 11, 2044–2049

Production of Alkylaromatic Compounds. **US Patent No**. US-20220371972-A1 & US-20220356132-A1

LINKS

🌐 reubenbritto.com

in linkedin.com/in/reuben-britto

⬤ github.com/rjb1116