Ian K. **Eaves**

Founder · Data Scientist · Machine Learning Engineer

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"Be the change that you want to see in the world"

Skills

Languages	Python, R, SQL, Julia, Matlab, Scala
DevOps	AWS, Kubernetes, Docker, Terraform, Ansible, Argo, Airflow
Frameworks	Scikit Learn, Tensorflow, Pandas, Dask, SpaCy, Tidyverse, PySpark
Back-end	PostgreSQL, MongoDB, Django, REST API

Experience

Grai

Madison, WI

Founder — *July 2021 to present*

- Founded Grai, an open-source platform that simplifies the management of complex data systems.
- Directed an international team of developers and open-source contributors to develop the Grai platform.
- Spearhead all aspects of early-stage company development, including fundraising, marketing, and product strategy.
- Secured venture backing from investors like Y Combinator and users including Roblox, Remax, and Axios.
- Tech stack: Python, TypeScript, Postgresql, Django, React, Kubernetes, Docker, Terraform, AWS, GCP, dbt

Centene

St. Louis, MO

Lead Machine Learning Engineer — *Jun. 2019 - July 2021*

- Lead Machine Learning Engineer for NextGen and population health initiatives.
- Directed a cross-functional team of 7 data scientists and engineers to develop and propagate new technologies across the organization.
- Architected a scalable machine learning deployment and maintenance framework using Kubernetes and Argo.
- Led delivery of machine learning models to provide efficient health care outcomes.
- Tech stack: Python, MongoDB, Kubernetes, Argo, Tensorflow, Dask

CIBO Technologies

St. Louis, MO

Lead Data Scientist — *May 2018 - May 2019*

- Led a team of data scientists developing smart tooling around data validation and ingestion of incoming messy data.
- Developed new data inputs to augment Bayesian models of crop growth and yield. Including fluid flow models for rainfall distribution and light scattering corrections for leaf area.
- Engineered field level environmental classification systems using unsupervised clustering with metric learning capabilities.
- Point engineer on company consulting efforts with fortune 500 agricultural clients to improve crop yield and quality.
- Tech stack: Python, R, Scala

Bayer

St. Louis, MO

Data Scientist — *Feb. 2017 - May 2018*

- Member of Bayer's consumer behavior team responsible for addressing farmer needs through data-driven insights.
- Built and deployed customer demand and behavior forecasting models via GLM and tree based approaches.
- Developed generalized customer segmentation models using K-means clustering with side information.
- Point engineer responsible for deploying key customer analytics business metrics driving company wide sales strategies.
- Tech stack: Python, R, Docker, AWS

Mentor Spaces

St. Louis, MO

Senior Data Scientist — *May 2016 - Feb. 2017*

- Built core analytics systems for Mentor Spaces to aid underrepresented professionals with mentorship and career opportunities.
- Developed early stage BI and analytics capabilities in Metabase.
- Architected companies first data warehouse using PostgresQL, Django, and RabbitMQ.
- Deployed customized Lucene based recommendation systems to support core job recommendation functionality.
- Deployed Bayesian Multi-Armed Bandit recommender systems to provide job recommendation capabilities tailored to user preferences.
- Tech stack: Python, Django, Postgresql, RabbitMQ, Docker, AWS

Bellhops

Chattanooga, TN

Lead Data Scientist

Dec. 2014 - May. 2016

- Lead a mixed team of data scientists and data engineers to develop crucial early stage company analytics capabilities.
- Responsible for analytical work leading to successful close of $13.5 million series B funding round.
- Built out early stage BI and analytics capabilities in Chartio.
- Lead the implementation of companies first data warehouse leveraging AWS, Airflow, and SQLAlchemy.
- Developed and deployed demand forecasting models across all company market segments.
- Oversaw development of early stage machine learning capabilities leveraging NLP, alongside other traditional ML components.
- Tech stack: Python, R, Django, Postgresql, AWS, Airflow

Drexel University

Philadelphia, PA

Doctoral Candidate (ABD)

Sept. 2011 - Dec. 2014

- Developed computational finite element techniques to model Schroedingers Equation on arbitrary two dimensional geometries with special interest in the geometric pseudo potential on bound particles.
- Developed performant finite element system implemented (Matlab) with GPU parallelization in CUDA.
- Molecular dynamic & conformational analysis of AB-42 protein folding and it's role in Alzheimer's formation.
- Teaching undergraduate physics for engineers.

Helmholtz Zentrum Berlin

Berlin, Germany

Research Assistant

Jun. 2012 - Dec. 2012

- Designed & instrumented custom hall sensor array for field characterization in ultra-high magnetic field, cryogenic environments.
- Wrote custom instrumentation software (Borland Delphi).
- Experimental apparatus design in 3D CAD (Solidworks).

Education

Drexel University

Philadelphia, PA

Masters of Science (ABD), Physics

Sept. 2011 - Dec. 2014

Baylor University

Waco, TX

Bachelors of Science, Physics, Minor in Mathematics

Sept. 2007 - May. 2011

Open Source Projects

Grai

Core Author

Open source data lineage and testing platform.

Visions

Core author

An open source library for semantic data with 42M+ downloads.

Publications

Journal Articles

Visions: An Open-Source Library for Semantic Data
Ian Eaves, Simon Brugman
Journal of Open Source Software 5.48 (2020) p. 2145. The Open Journal, 2020

Time-dependent Spatial Intensity Profiles of Near-Infrared Idler Pulses From Nanosecond Optical Parametric Oscillators
L. J. Olafsen, J. S. Olafsen, I. K. Eaves
Applied Physics B 124.6 (May 2018) p. 110. 2018

Synchronized Mid-Infrared Beam Characterization of Narrow Gap Semiconductors
L. J. Olafsen, I. K. Eaves, J. S. Olafsen
AIP Conference Proceedings 1416.1 (2011) pp. 88–90. 2011