Ian K. **Eaves**

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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*

Barry M. Goldwater Scholar • Honors College Member • Dean's List • Elected Student Senator

Experience

Grai — *Madison, WI*

Founder — *July 2021 to present*

- Founded Grai, an open-source platform that simplifies the management of complex data systems.
- Directs a global team to develop and maintain the platform, with users from companies like Roblox, Remax, and Axios.
- Spearhead all aspects of early-stage company development, including fundraising, marketing, and product strategy.
- Successfully secured venture backing from investors like Y Combinator.

Centene — *St. Louis, MO*

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

- Lead machine learning engineer for the NextGen and population health initiatives at Centene, a Fortune 50 healthcare company.
- Architected and oversaw implementation of novel internal machine learning deployment platform.
- Guided a cross-functional team to develop new technologies which improved healthcare data system operations and accessibility.
- Mentored junior team members, fostering professional growth and technical excellence.

CiBO Technologies — *St. Louis, MO*

Lead Data Scientist — *May 2018 - May 2019*

- Directed a team at CiBO Technologies to develop data tools that improved agricultural system modeling and analysis.
- Built machine learning models to predict rainfall distribution and enhance environmental understanding at the field level.
- Created software solutions to refine agricultural data quality used in forecasting crop growth patterns.
- Led company consulting efforts with fortune 500 agricultural clients to improve crop yield and quality.

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.
- Developed models to forecast customer demand, guiding sales strategies and marketing resource allocation.
- Built software responsible for allocating 10's of millions of dollars in company investment.

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 and deployed machine learning tools to connect students with mentors and job prospects tailored to their background.

Bellhop — *Chattanooga, TN*

Lead Data Scientist — *Dec. 2014 - May. 2016*

- Led a cross-functional team of data scientists and engineers to establish the foundational analytics and machine learning capabilities for Bellhops, a tech-enabled moving company.
- Led analytics initiatives leading to a $13.5M Series B funding round.
- Implemented the company's first data warehouse and developed models to forecast demand across markets.
- Developed and implemented a variety of machine learning models to optimize customer acquisition, retention, and operations.

Drexel University — *Philadelphia, PA*

Doctoral Candidate (all but dissertation) — *Sept. 2011 - Dec. 2014*

- Researched computational methods for exploring quantum systems and the role of Amyloid Beta-42 protein in the formation of Alzheimer's disease.
- Taught introductory level physics for undergraduate engineers.

Helmholtz Zentrum Berlin — *Berlin, Germany*

Research Assistant — *Jun. 2012 - Dec. 2012*

- Conducted research at Helmholtz Zentrum Berlin as part of the German academic exchange program DAAD.
- Developed custom sensor array systems for use in cryogenic, high magnetic field environments.
- Designed & fabricated sensor arrays, and created control & analysis software for the sensor system.

Space Camp *Izmir, Turkey*

Camp Counselor *Summer 2011*

- Served as a counselor at Space Camp Turkey, fostering a passion for science and space exploration in young students from across the globe.

Baylor University *Waco, TX*

Office Assistant *Sep. 2009 - May. 2011*

- Worked in the physics department office assisting with administrative tasks and student support.

Baylor University *Waco, TX*

Research Assistant *Jan. 2009 - May. 2011*

- Developed and implemented a novel method for infrared beam profiling including all necessary instrumentation control and data analysis software.
- Research formed the basis for an undergraduate thesis, publications in the Journal of Applied Physics, and in the AIP conference proceedings.
- Supported by multiple grant awards and earned the Barry M. Goldwater Scholarship supporting high achieving students in the sciences.

Williams Hart and Boundas Law Firm *Houston, TX*

Legal Assistant *Summer 2007 & 2008*

- Supported litigation against GSK seeking compensation for parents of children affected by the drug Paxil.
- Collected and reviewed evidence, including medical records, depositions, and other legal documents.
- Gained firsthand exposure to case strategy and legal writing, fostering an interest in legal advocacy.

Interests

- **Competitive rowing**, particularly sweep rowing in eights.
- **Military history & tactics**, with special interest in pre-gunpowder eras.
- **Musical theater and tap dance**, especially Gilbert and Sullivan's operettas.
- **Street Epistemology**, a method and practice for fostering constructive discussions on challenging topics.
- **Open Source Software**, making the world a better place through software that's free to use and open for all.

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 (2011) pp. 88–90. AIP Publishing, 2011

Theses

Numerical Integration of the Wavefunction in FEM
I. K. Eaves
(Dec. 2013). 2013

Computational Mid-Infrared Beam Analysis
I. K. Eaves
(2011). 2011