Harry Askham | CV

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- Software engineer with fifteen years of professional experience, including seven years spent building and leading high-performing teams across both Google and DeepMind.
- Delivered an impactful and varied portfolio of work, ranging from widely used full-stack web applications to machine learning research published in *Nature*.
- Excited about solving the engineering challenges that arise from deploying state-of-the-art scientific breakthroughs in the real world.

Education

University of Cambridge
Christ's College — *Oct 2008 – Jun 2011*
BA (Hons.), MA (Cantab), Computer Science (**2.1**)

University of London
Birkbeck College — *Oct 2014 – Aug 2016*
MSc Cognition & Computation (**Distinction**)

University of London
Birkbeck College — *Oct 2021 – Aug 2022*
Mathematics Graduate Certificate (**Distinction**)

Experience

Google DeepMind — **London**
Senior Staff Software Engineer — *Aug 2020 – Present*
- **DM Applied** (*2020 - 2023*), TLM Role
  - Engineering lead with a focus on delivering real-world applications of DeepMind's breakthrough AI.
  - Led the Applied engineering team working with our Science group to launch Isomorphic Laboratories.
- **GDM GenAI**, (*2023 - Present*), IC SWE Role
  - Led the Evaluation pillar of GDM's AI Platform team, building out the evaluation ecosystem within Gemini.
  - Most recently focused on efforts to accelerate ML research across Alphabet.

Google — **London**
Engineering Lead, Health Research UK — *Jan 2019 – Aug 2020*
- Grew and led Google Health's 23-engineer research team in the UK.
- Managed three subteams across ophthalmology, radiotherapy and medical records research.
- Focused on the safe deployment of state-of-the-art machine learning models in clinical settings.

DeepMind — **London**
Staff Software Engineer, Health Research — *Oct 2016 – Jan 2019*
- Built and led a 12-person engineering team in Health Research.
- Designed and built the infrastructure behind several *Nature*-family publications.
- Led the *sui generis* deployment of best-in-class clinical predictions to doctors via an iOS app.

Google — **London**
Senior Software Engineer, AdWords & Sales — *Oct 2011 – Oct 2016*
- Tech lead for full-stack team of 8 engineers building high-revenue sales tools.
- Led engineering for a knowledge management system relied upon by 20,000+ Google salespeople.

Bloomberg — **London**
Research & Development (Internship) — *Jun 2010 – Sep 2010*
- Designed and delivered a suite of high-priority network simulation and testing tools in C++.

Skills

- Designing and implementing complex Google-scale distributed systems
- Leading the practical, real-world deployment and evaluation of cutting-edge machine learning models
- Hiring, building and leading highly effective engineering and research teams
- Running full-stack production application development projects from inception to launch

Languages

- Career-spanning professional experience with Python and its scientific ecosystem
- Multiple years of professional experience in each of C++, Go and Java
- JavaScript, TypeScript, PureScript, Elm and experience with modern web development
- iOS + MacOS develepment experience in both Swift and Objective-C
- Significant experience with Haskell and a long tail of adjacent functional languages

Selected Publications

Nikolov, Stanislav, Sam Blackwell, Alexei Zverovitch, Ruheena Mendes, Michelle Livne, Jeffrey De Fauw, Yojan Patel, Clemens Meyer, **Harry Askham** et al. "Clinically Applicable Segmentation of Head and Neck Anatomy for Radiotherapy: Deep Learning Algorithm Development and Validation Study." Journal of Medical Internet Research 23, no. 7 (2021): e26151.

Tomašev, Nenad, Natalie Harris, Sebastien Baur, Anne Mottram, Xavier Glorot, Jack W. Rae, Michal Zielinski, **Harry Askham** et al. "Use of deep learning to develop continuous-risk models for adverse event prediction from electronic health records." **Nature Protocols** (2021): 1-23.

Yim, Jason, Reena Chopra, Terry Spitz, Jim Winkens, Annette Obika, Christopher Kelly, **Harry Askham** et al. "Predicting conversion to wet age-related macular degeneration using deep learning." **Nature Medicine** (2020): 1-8.

Tomašev, Nenad, Xavier Glorot, Jack W. Rae, Michal Zielinski, **Harry Askham**, Andre Saraiva, Anne Mottram et al. "A clinically applicable approach to continuous prediction of future acute kidney injury." **Nature** 572, no. 7767 (2019): 116-119.

De Fauw, Jeffrey, Joseph R. Ledsam, Bernardino Romera-Paredes, Stanislav Nikolov, Nenad Tomasev, Sam Blackwell, **Harry Askham** et al. "Clinically applicable deep learning for diagnosis and referral in retinal disease." **Nature Medicine** 24, no. 9 (2018): 1342-1350.

Wagner, Siegfried Karl, Reena Chopra, Joseph R. Ledsam, **Harry Askham**, Sam Blackwell, Livia Faes, Konstantinos Balaskas, Trevor Back, and Pearse Andrew Keane. "Diagnostic accuracy and interobserver variability of macular disease evaluation using optical coherence tomography." Investigative Ophthalmology & Visual Science 60, no. 9 (2019): 1849-1849.

Quercia, Daniele, **Harry Askham**, and Jon Crowcroft. "TweetLDA: supervised topic classification and link prediction in Twitter." In Proceedings of the 4th Annual ACM Web Science Conference, pp. 247-250. 2012.