

JOHN HESS

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SUMMARY

Technically capable leader and communicator with experience in software and aerospace engineering, data science, and policy. Lifelong learner committed to teaching and continuously improving the organizations I work with and myself.

EXPERIENCE



Google via Adecco (google.com, adeccousa.com)

Product Management & Software Engineering

2017 - Present

Designed, engineered, launched and landed an application used by thousands of Google people managers to set and monitor learning goals for their teams

- Blazed trail for a previously non-technical team to create and launch their own custom software products dramatically expanding the teams capacity to educate innovatively
- Researched user needs with dozens of stakeholders across the organization and planet
- Designed high-fidelity mockups to build consensus across the organization
- Iteratively improved product based on data

Improved data infrastructure by evangelizing, demonstrating, and teaching the benefits of canonicalization, normalization, and documentation

Led the charge to tightly integrate Google and vendor systems via API for a faster, lower-friction user experience and two orders of magnitude faster iteration speed



Berkman Klein Assembly, Harvard University (bkmla.org)

Security Policy, Research & Design

2017

Collaborated with academics and tech industry professionals to design and implement solutions to daunting computer security issues

Completed rigorous course on Internet Policy taught by Joi Ito and Jonathan Zittrain



Independent Consultant (datademystified.com)

Data Science and Software Development Consultant

2009 - Present

Advice and Strategy

- Advised clients on how to capitalize on opportunities in data science and analytics
- Trained teams in data collection and analysis, especially survey design
- Elicited expertise from client organizations using custom-built analytical tools to foster exploration and shared understanding of complex interactions between multiple variables
- Guided process improvement workshops grounded with a combination of data-driven analysis and process improvement expertise

Analysis and Implementation

- Designed and built a platform for live- and back-testing commodity trading strategies and implemented highly profitable strategies. One strategy, created and launched in 2009, has brought in six figure profits each year since.
- Built predictive models to guide global staffing and hiring decisions
- Built transparent recommendation system robust to missing data and fuzzy user preferences



KnowledgeHound (knowledgehound.com)

Chief Data Scientist, Lead Engineer

2013 - 2016

Led company's technical team including executive responsibility for architecture, development, security, DevOps, product management, and quality assurance

Audited and secured existing web application and infrastructure

Designed and brought to market never-before-seen, patentable analytics systems for market researchers

Instigated and led organizational change to create a high quality, reliable technical organization

- Defined processes and metrics to rally organization behind
- Implemented and coached Agile processes for development and Lean processes for data processing. Improved data supply chain performance
- Led architectural transformation from pile-of-scripts to MVC, services, and reusable, maintainable, extensible design
- Mentored junior team members, teaching security best practices, testing, version control, and architecture, and why to love each

Developed hiring process to select engineers with technical talent, ability to conceptualize complex problems, and soft skills



edX (edX.org)

Fellow, Program Manager

May 2012 – Sep 2013

Analyzed millions of user interactions to support exploratory research, pedagogical decision making, and quantifying achievement of the non-profit's goals

Guided world famous instructors from MIT and Harvard in translating their brick and mortar classes into massive open online courses for more than 250,000 students. Especially focused on community building at scale, the interplay between instructional design and community and peer-to-peer learning.

Negotiated intellectual property rights to software and textbooks for use in novel environments



Air Force Flight Test Center

Electronic Warfare Engineer

August 2008 – August 2009

Led small analysis team that reported several critical vulnerabilities in aircraft's missile defenses

Designed and coded custom data analysis software that found major safety issues. Presented findings to leadership and defended them when challenged by the responsible contractor

Planned and conducted flight tests including execution from control room

EDUCATION AND RESEARCH



Massachusetts Institute of Technology

MS in Technology and Policy and MS in Aeronautics and Astronautics

Class of 2012

Advised the Chairman of the Joint Chiefs of Staff and DOD leadership on improving access to mental health care using telehealth. Supported recommendations by:

- Interviewing dozens of stakeholders across services and in dozens of roles
- Analyzing millions of patient records and deployment patterns to characterize demand
- Modeling patient flow using custom discrete event simulation
- Analyzing real-world organizational and policy constraints to provide actionable recommendations tailored to the complex set of incentives driving systemic behavior

Developed artificial intelligence tool to classify 800,000 emergency department records.



University of Michigan

BS in Mechanical Engineering

Class of 2008