# **Nathan Beard**

Curriculum Vitae (970) 310-6481 natebeard04@gmail.com

### Education

University of Colorado at Boulder—College of Engineering and Applied Sciences M.S., Information, Communication Technologies for Development (ICTD)

Technology design, policy and ethics, social impacts of data-driven technologies

Boulder, CO 2016 - 2018 3.9 GPA

### University of Colorado at Boulder—Leeds School of Business

B.S., Business Administration and Information Management

- Certificate in Technology, Art, and Media
- Certificate in Entrepreneurial Studies
- International business coursework and internship in Barcelona, Spain

Boulder, CO 2009 - 2014

#### Research Interests

Investigating ethical, socioeconomic and political impacts of data-driven technologies in society with a focus on technology policy and ethics at the intersection of privacy, labor, and inequality. Interested in mixed methods approaches and historical case studies seeking to understand the contexts in which information communication technologies are developed and applied in society in order to design policies that support the well-being and dignity of under-served and working-class populations.

#### Interests:

technology policy; surveillance and privacy; ethical and social impacts of technology; labor; democracy; inequality; political economy; STS; design futures

#### **Publications**

Saltz, J., Skirpan, M., Fiesler, C., Gorlich, M., Yeh, T., **Beard, N.** and Heckman, R. Integrating Ethics Within Machine Learning Courses. "Machine Learning Education" Special Issue of ACM Transactions on Computing Education. Forthcoming.

Skirpan, M., **Beard, N.**, Bhaduri, S., Fiesler, C., and Yeh, T. *Ethics Education in Context: A Case Study of Novel Ethics Activities for the CS Classroom*. Proceedings of the SIGCSE Conference on Computer Science Education. 2018. **[Third Best Paper Award]** 

### Refereed Conference Presentations

**Beard, N.**, Troxell, G., and Fiesler, C. 21st Century Digital Democracy Needs a New Contract. IPP 2019: Internet, Policy, and Politics Conference. Oxford, UK, 2018.

Fiesler, C., **Beard, N.**, Keegan, B. No Robots, Spiders, or Scrapers: Regulation of Data Collection Methods in Social Media Terms of Service. ICWSM poster. 2018.

## Under Submission and In Progress

**Beard, N.**, Troxil, G., Fiesler, C. 21st Century Digital Democracy Needs a New Contract: Applying Foundational Theories of Modern Democracy to Platform Terms of Service. Under submission.

Fiesler, C., Beard, N., Keegan, B. Ethical and Legal Consequences of Data Collection Provisions in Social Media Terms of Service Agreements for Researchers. In progress.

**Beard, N.**, Keegan, B., Fiesler, C. Terms of Submission: Ethical and Political Consequences of Social Media Policies. In progress.

## Research Experience and Projects

Internet Rules Lab 2017 - present

Research assistant

Boulder, CO

Research leveraging qualitative and computational techniques under the supervision of Dr. Casey Fiesler and Dr. Brian Keegan in the Department of Information Science. We explore online governance and the ethical, behavioral and legal implications of social media policies. On another project, Dr. Fiesler and I are researching ethics and computer science education at the university level.

#### **ICTD Lab: Refugee and Immigrant Resettlement**

2018

Team member

Boulder, CO

As part of a team of graduate students in the ICTD program, we developed local partnerships, researched systemic risks, conducted stakeholder analyses, and designed user-tested prototypes to support the refugee and immigrant resettlement process in Aurora, Colorado.

#### **HCC Foundations Ethics Curriculum**

2017

Learning and research assistant

Boulder, CO

Designed and integrated ethics curriculum under the supervision of Michael Skirpan for a human-centered computing (HCC) class in the Department of Computer Science that aimed to help students consider the social impacts of technology as they learned the software design and prototyping cycle.

#### **CPRSouth Conference 2017**

2017

Young Scholar

Yangon, Myanmar

Raised funds and got accepted to a two-day workshop and three-day conference on ICT policy with young researchers, technologists, journalists and regulators from Sub-Saharan Africa and Southeast Asia. We learned how to design technology policy research projects and write policy briefs based on timely research publications that can influence policy for social good.

#### Information, Communication Technology (ICT) Law and Policy

2017

Independent study

Boulder, CO

Designed an independent study to explore Internet law and policy based on a collection of readings, such as James Grimmelmann's "Internet Law: Cases and Problems," and topics spanning from case law and statute interpretation and application, to TCP/IP filtering and international data protection law.

#### **Ethics in Technology and Law Competition**

2017, 2018

Multidisciplinary tech ethics competition

Boulder, CO

Designed strategy and pitched ethical, legal, and technical business solutions covering data privacy in 2017 and fake news in 2018 as the technical lead in a team of law and business students for a multidisciplinary technology, ethics and law case competition.

### Financial inclusion and mobile technologies

2016

Research assistant

Boulder, CO

Interviewed experts, executives and entrepreneurs around the globe, collected research and helped draft a chapter on mobile technology and financial inclusion as an assistant researcher for Albert Chu, (Chapter 6: *Mobile Technology and Financial Inclusion. Handbook of Blockchain, Digital Finance and Inclusion, Volume 1.* 2018).

## **Professional Experience**

#### **EFK Group** (Agribusiness and social impact startup)

2015 - 2016

Design Strategy

Nairobi, Kenya

 Conducted interviews with rural farmers about their lives and experiences with farming; surveyed stakeholders and investors, and designed and revitalized EFK brand and website.

#### **Unreasonable Group** (Startup accelerator and think tank)

2014 - 2015

Digital Editor

Boulder, CO

- Curated, edited, and broadcasted over 200 posts, led digital and content strategy, and managed 30 regular writers—spanning from serial entrepreneurs and impact investors, to thought leaders and industry influencers, such as TIME Magazine's Hero of the year and former GoogleX designer.
- Wrote 15+ articles and advised startups on communicating with various audiences.
- Designed, prototyped and implemented a new user-centric, content creation strategy engaging 150+ entrepreneurs and organizations, and spearheaded a partnership with USAID.

### First User Group (User experience consultancy agency)

2014

User Experience (UX) Apprentice

Boulder, CO

- Learned and deployed UX methodologies in the field removing biases and designing experiences from an anthropological and cognitive psychology approach.
- Conducted three UX tests and a report that led to future business contracts in mobile app design.

#### **JumpCloud** (Server management tech startup)

2014

Growth Hacker

Boulder, CO

- Designed real-time growth metrics and integration for the JumpCloud website.
- Ghost wrote and edited white papers on server management and security.

#### Van Heyst Group (Global events firm)

2013

Marketing, Design and Partnership Development Intern

Boulder, CO

- Identified and contacted global "startup hubs" for Startup Phenomenon, a conference of around 300 entrepreneurs, policymakers, and investors that have developed a full startup ecosystem.
- Billion People Project (affiliated non-profit startup focused on environment causes): organized focus groups and aided in mobile/web design; partnership development and project management for NCAR and CDC liaising and business-city report.

# **Elipsis Design** (Artist collective and apparel merchandising)

2008 - 2011

Co-founder

Fort Collins, CO

• Developed business plan, sponsored public events and athletes for brand publicity, contracted consignment of products into stores, sourced and negotiated costs for product manufacturing, settled price points based off target market, and created custom website.

## Leadership and Service

- Mentor, Young Alumni Mentor program, Leeds Business School // 2014 present
- Student representative, Atlas Graduate Student Collective, University of Colorado // 2016 2018
- Volunteer tutor, I Have a Dream Foundation (IHAD) at Boulder High School // 2017 2018
- First place, Business Ethics Case Competition // 2014
- Business chief, InnovateCU computer science and startup student club // 2013 2014
- Co-founder, New Venture Challenge Mobile App Track student competition // 2013 2014
- Volunteer, Young Life Chiapas, Mexico // 2013
- C2C fellow at Bard College Center for Environmental Policy // 2012
- Volunteer, Living Hope community center, Cape Town, South Africa // 2007, 2008

#### Skills

- Research: ethnographic, comparative, and critical/speculative approaches
- Data science: Python, Jupyter Notebook, Excel
- Design and web: iOS, Android Studio, WordPress, CSS, HTML5, Adobe Creative Suite, SEO
- Writing and communication: content design, reporting and editing, academic writing, social media
- Business: business model design, prototyping, marketing, partnership and customer development