



Rick Barber

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Profile

I am a second year PhD student in Computer Science at University of Illinois Urbana-Champaign. I research user-platform conflicts online and tools which help users navigate these conflicts in the Crowd Dynamics Lab and Social Spaces Group. My research uses tools from human-computer interaction, web measurement, and game theory.

Industry

VISITING DIRECTOR; UNIVERSITY OF ILLINOIS CITY SCHOLARS PROGRAM – SUMMER 2018

Recruited companies to sponsor fall semester interns for a university program. Planned program expansion with diverse stakeholders from faculty, college administrators, & industry.

CO-FOUNDER AND VENTURE PARTNER; REFACTOR CAPITAL – 2015-2020

Sourced, analyzed, and led seed stage investments in several companies. Assisted portfolio companies in technology choices, hiring, strategy, and business development.

Wrote firm's founding strategy and vision document "The Need for Something Different". Built the fund's financial model. Elaborated and formalized the firm's decision making process.

DATA SCIENTIST THEN CHIEF OF STAFF; NUNA HEALTH – 2013-2015

As an outside advisor helped the CEO develop a fundraising strategy and directly negotiated with investors to raise \$30MM for company Series A fundraising

First post series A hire as a member of the data science team. Developed strategy and functional proof of concept for a future healthcare bundled payments processing engine. Then worked full-time with CEO on business development, operations, and marketing/communications strategy and implementation. Helped grow the company from 6 employees to over 80 and revenues from \$1MM to over \$10MM.

DATA SCIENTIST INTERN; ANDREESSEN HOROWITZ – SUMMER 2013

Developed internal tools for mining the web to find top talent and investing opportunities and did technical vetting as a member of the deal and research team at a top venture capital firm.

DATA SCIENTIST INTERN; GROUPON – SUMMER 2012

Built a system for automatically detecting new business openings from unstructured text at massive scale using the Twitter Storm stream computing architecture

Research

SHAH LAB, STANFORD UNIVERSITY – WINTER, SPRING 2014

Work on applying machine learning and data mining to electronic health records, advised by Nigam Shah in the Biomedical Informatics department

INFOLAB, STANFORD UNIVERSITY – SUMMER-WINTER 2011

Work on large-scale social and information network datasets advised by Jure Leskovec

DATA MINING RESEARCH GROUP, UIUC – SUMMER 2010 - AUTUMN 2011

Work on large-scale social and information network datasets advised by Jiawei Han

CENTER FOR SIMULATION OF ADVANCED ROCKETS – SUMMER 2009, SUMMER 2010

Work on 3d surface meshes advised by Eric Shaffer

Volunteer

RUNNING R/CORONAVIRUS, R/COVID19, AND R/COVIDPROJECTS REDDIT COMMUNITIES, JAN 2020-PRESENT

Head of the moderation team for the largest community for COVID-19 discussion on Reddit and likely anywhere online. 2 million subscribers, 3 million daily unique visitors, and 15 million weekly unique visitors. Grown the volunteer moderation team to 80 people. Developed guidelines, procedures for handling disputes, process for recruiting, process for communication with users and press, process for handling frequent AMA appearances, and process & policy for a large volume of academic and commercial research requests. Built custom software to scale moderation efforts. Provided feedback to Reddit staff on product design and feature requests.

Publications

A Slow Algorithm Improves Users' Assessments of the Algorithm's Accuracy. Joon Park, Rick Barber, Karrie Karahalios, Alex Kirlik. CSCW 2019.

When the Platform User Fights Back (with Software). Rick Barber and Hari Sundaram. In The Ethical Machine, Shorenstein Center, Harvard Kennedy School, May 2019

Extracting general lists from web documents: A hybrid approach. Fabio Fumarola, Tim Weninger, Rick Barber, Donato Malerba, Jiawei Han. Modern Approaches in Applied Intelligence

Unexpected results in automatic list extraction on the web. Tim Weninger, Fabio Fumarola, Rick Barber, Jiawei Han, Donato Malerba. KDD Explorations

HyLiEn: a hybrid approach to general list extraction on the web. Fabio Fumarola, Tim Weninger, Rick Barber, Donato Malerba, Jiawei Han. WWW 2011

Arnold: Declarative Crowd-Machine Data Integration. Shawn R Jeffery, Liwen Sun, Matt DeLand, Nick Pendar, Rick Barber, Andrew Galdi. CIDR 2013

Growing parallel paths for entity-page discovery. Tim Weninger, Fabio Fumarola, Cindy Xide Lin, Rick Barber, Jiawei Han, Donato Malerba. WWW 2011

Using narratives as a source to automatically learn phenotype models. Vibhu Agarwal, Rick Barber, Paea LePendur, Mary Boland, Nigam Shah, George Hripcsak. DMMI 2014

Press

Emma Betuel. "Meet the mods behind the fastest-growing subreddit: r/Coronavirus" Inverse. March 14, 2020. <https://www.inverse.com/mind-body/the-mods-behind-the-fastest-growing-covid-19-subreddit>

Olivia Solon & April Glaser. "How Reddit's coronavirus community became a destination" NBC News. March 18, 2020. <https://www.nbcnews.com/tech/tech-news/how-reddit-s-coronavirus-community-became-destination-n1162661>

Josh Swartz, James Lindberg, & Amory Siverston. "How Reddit's Coronavirus Community Became A Global Lifeline" Endless Thread Podcast, WBUR. March 27, 2020.. <https://www.wbur.org/endlesstthread/2020/03/27/reddit-coronavirus-lifeline>

Mirel Zaman. "What It's Like To Moderate Reddit's Wildly Popular Coronavirus Forum" Refinery29. April 15, 2020. <https://www.refinery29.com/en-us/2020/04/9683043/reddit-coronavirus-forum-moderator-interview>

Teaching

COURSE INSTRUCTOR; CS361 PROBABILITY & STATISTICS FOR COMPUTER SCIENTISTS , UIUC - 2017-2018 ACADEMIC YEAR

Developed and delivered lectures, administered course

TEACHING ASSISTANT; CS598HS ADVANCED SOCIAL AND INFORMATION NETWORKS, UIUC - SPRING 2019

Office hours and logistics for a course on social and information networks, algorithmic game theory, and behavioral economics

HEAD COURSE ASSISTANT; E245 THE LEAN LAUNCHPAD, STANFORD UNIVERSITY - WINTER 2013

Office hours, logistics, and management of other TAs for project-based startup course taught by Steve Blank, popularizer of so-called lean startup methodology

COURSE ASSISTANT; CS183 STARTUP, STANFORD UNIVERSITY – SPRING 2012

Office hours and logistics for the one-time course taught by Peter Thiel on startups.

COURSE ASSISTANT; CS173 DISCRETE STRUCTURES, UIUC – SPRING 2009, SPRING 2010

Discussion sections, office hours, and logistics for required CS undergraduate discrete math course taught by Margaret Fleck.

COURSE ASSISTANT; CS125, INTRO TO COMPUTER SCIENCE, UIUC – FALL 2009

Discussion sections, office hours, and logistics for required CS undergraduate programming course taught by Lawrence Angrave

MATH RESOURCE CENTER, LEWIS AND CLARK COMMUNITY COLLEGE – 2007-2008

Tutoring algebra through differential equations

Education

University of Illinois at Urbana-Champaign – Computer Science PhD candidate 2018-present

Stanford University – MS in Computer Science with specialization in Artificial Intelligence & Bioinformatics, 2014

University of Illinois at Urbana-Champaign – BS in Computer Science with specialization in Artificial Intelligence, Summa cum laude, 2011