David Stein

401 W 47th St #20
New York, NY 10036

davidbstein@gmail.com
davidbstein.com

Education

Massachusetts Institute of Technology – SB Computer Science 2006-2011
Massachusetts Institute of Technology – M.Eng Computer Science incomplete*

Work Experience

Sidewalk Labs   2017-present

Sidewalk Labs is Alphabet's urban innovation arm. Our vision is to use technology, research and investment to motivate improvements to urban life. We are currently doing the groundwork for a district-scale urban development in Toronto.

Senior Software Engineer - R&D

2018 - Currently engaged in active research of novel approaches to automated freight and trash infrastructure, urban gardening, distributed sensing and mapping, and dynamic traffic and pedestrian management.

2017 - Using recent academic results as a starting point, developed devices that can measure the movement and intent of pedestrians, cars, and bikes in real time while preserving privacy and anonymity. Deployed working prototypes New Haven, CT

Braze (formerly Appboy)   2016-2017

Braze is a private company that tracks on the order of two billion users and automates communication between brands and users (e.g., push notifications and emails).

Director of Engineering

Led the 20 person engineering team after the CTO was promoted into the CEO role. Set up promotion paths, brought in training for new managers, managed hiring, mentoring, and internship programs. Oversaw technical development of Braze's product suite.

Foursquare   spring 2016

Product Engineer - Insights Team

Developed tool for converting foot traffic data into market predictions. Left after delivering a working prototype. Prototype eventually grew into the Foursquare Analytics product.

Dropbox   2011 - 2015

Product Engineer - Teamwork Group   *(2015)*

Designed, built and tested products that would allow Dropbox to enter new markets.

Technical Lead / Team Founder - Productivity Tools   *(2013 - 2014)*

Started the team focused on automating and computationally augmenting sales, support, finance, and legal organizations. Grew the team to 12 engineers.

Software Engineer / Technical Lead - Analytics Team   *(2011-2012)*

Built, designed, and maintained the suite of tools used by Dropbox to collect and analyze data on user behavior. Many of these tools are still critical parts of Dropbox's data infrastructure today. Led the technical side of security responses and incident mitigation.

* Left M. Eng. program to join Dropbox pre-fundraising. Completed all coursework. Draft thesis available on request.

| Research Experience | **MIT Distributed Robotics Lab** | 2009-2011 |

Graduate Research Assistant

Built a system of robots and algorithms that could work as a team to build scaffolding. Primary author and presenter for two conference papers. Completed first and second drafts of master's thesis (available on request).

Microsoft Technical Computing Cloud — 2010

Intern

Developed novel machine learning approaches to anticipate demand for computing resources. Used these predictions to decrease power consumption across data centers.

MIT Systems Engineering Research Initiative — 2009-2011

Undergraduate Research Assistant

Built a physics simulator to produce and assess satellite designs. Primary co-author on a conference paper on new approaches to building complex systems. Recently (2014) adapted this work for publication in the Journal of Spacecraft and Rockets.

Teaching Experience			
Teaching Assistant	MIT 6.005 - Elements of Software Design	2010
Lab Assistant	MIT 6.005 - Elements of Software Design	2008
Lab Assistant	MIT 6.01 - Introduction to Computer Science	2008

Publications
(alphabetical first authors)

Multi-Attribute Tradespace Exploration for Survivability A. Ross, D. Stein, D. Hastings, Journal of Spacecraft and Rockets vol. 51 no. 5 (2014)

Constraint-aware coordinated construction of generic structures D. Stein, T. Schoen, D. Rus, International Conference on Intelligent Robots (IROS) 2011 **(presenter)**

Experiments in Decentralized Robot Construction with Tool Delivery and Assembly Robots A. Bolger, M. Faulkner, D. Stein, L.White, S. Yun, D. Rus, International Conference on Intelligent Robots (IROS) 2010 **(presenter)**

Multi-Attribute Tradespace Exploration for Survivability: Application to Satellite Radar M.Richards, A. Ross, D. Stein, D. Hastings, AIAA SPACE Forum 2009

Patents

Presenting data in response to an incomplete query David Stein, U.S. Patent 9,235,636 filed December 20, 2012, Issued Jan 12, 2016

Authorization Review System David Stein, U.S. Patent 9,497,253 filed April 9, 2013, Issued November 15, 2016

Unified Interface for querying data in legacy databases and current databases David Stein, U.S. Patent Application 13,737,322 filed January 9, 2013

Collegiate Activities

Heavyweight Crew (Division 1, Freshman 8+ '06-'07, 1st boat '07-'08, '08-'09), Inter-fraternity Council (6 elected reps from 1000+ member community), Kappa Sigma Fraternity President

Interests

Marathons and Half Marathons, Brewing Beer, SCUBA Diving, Rowing, Piano, Trombone