ANNUAL REPORT FY2016

csnyc

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A YEAR IN REVIEW

Dear Friends,

In May 2016, CSNYC celebrated our third birthday. In just three years, we expanded Computer Science (CS) from a handful of classrooms to nearly 250 New York City public schools across all five boroughs. From day one, each of CSNYC's investments has reflected the **fundamental belief that that all students can learn CS if given an engaging and rigorous opportunity.**

The past year saw a major turning point for our work. In September 2015, Mayor Bill de Blasio announced **Computer Science for All (CS4All), an unprecedented 10-year, $80 million public-private partnership to provide CS to every child in our city's public schools** by training more than 4,700 teachers in grades K-12. CS4All is the realization of CSNYC's mission, and we are thrilled to be the city's lead partner on this initiative.

This year, we also celebrated the first graduating class of the Academy for Software Engineering (AFSE). ASFE, a public high school founded in 2012, was the original proof point for the idea that CS is for all kids. The NYC Department of Education staff also believed that this was possible. Four years later, **100% of AFSE students were accepted to college**, and many plan to pursue CS and other STEM pathways. In many ways, AFSE's first graduation embodies CSNYC's own coming of age, and ushers in the next phase of our work: CS4All and the development of the CS ecosystem in NYC.

This annual report highlights these two significant milestones, along with other accomplishments for the year. We offer sincere thanks to all of our supporters, whether they contributed financially or by donating their time and expertise, resources, or services to help advance our work to bring CS to every student in NYC public schools. These needs will only grow as we reach more schools, and we look forward to counting on your continued support as we broaden and deepen the impact of this important work.

Sincerely,

Fred Wilson
Founder & Chair

Michael Preston
Executive Director

CSNYC's mission is to ensure that all of New York City's 1.1 million public school students have access to a high-quality Computer Science education that puts them on a pathway to college and career success.

WHY COMPUTER SCIENCE?

Computer Science in NYC extends beyond teaching kids to simply code. Instead, it prepares them to solve problems where code is a part of the answer. CS is as diverse as our city's students, and CS programs develop skills that can be used for art, music, algebra, science, and robots. This will have a lasting impact in the lives of our students, regardless of what they do after high school.

"Understanding computer science gives me an ability to fully use so many resources around me. For example, my mom doesn't quite realize everything she can do with her iPhone, and because of that, she's not as independent as she could be. Knowing computer science gives me independence."

MAMADOU DIALLO
Class of 2017
**Academy for Software Engineering**

"Students live in a world that infused with data and computation. Computer science provides the literacy for students to meaningfully engage with that world."

ERIC ALLATTA
Computer Science Teacher
Academy for Software Engineering

"Among five key MongoDB company values is, "Make it Matter". This value requires us to take the long view on some fronts. In 2017, it is still unusual for students to encounter computer science in their classrooms before entering college. This absence directly contributes to the gender and racial disparity we see today across the technology industry and will result in a scarcity of quality engineers going forward. The great work that CSNYC is doing is addressing these concerns by improving access to computing for many more students much earlier in their academic careers. We are excited to contribute to these efforts."

SHANNON BRADSHAW
VP of Education, MongoDB
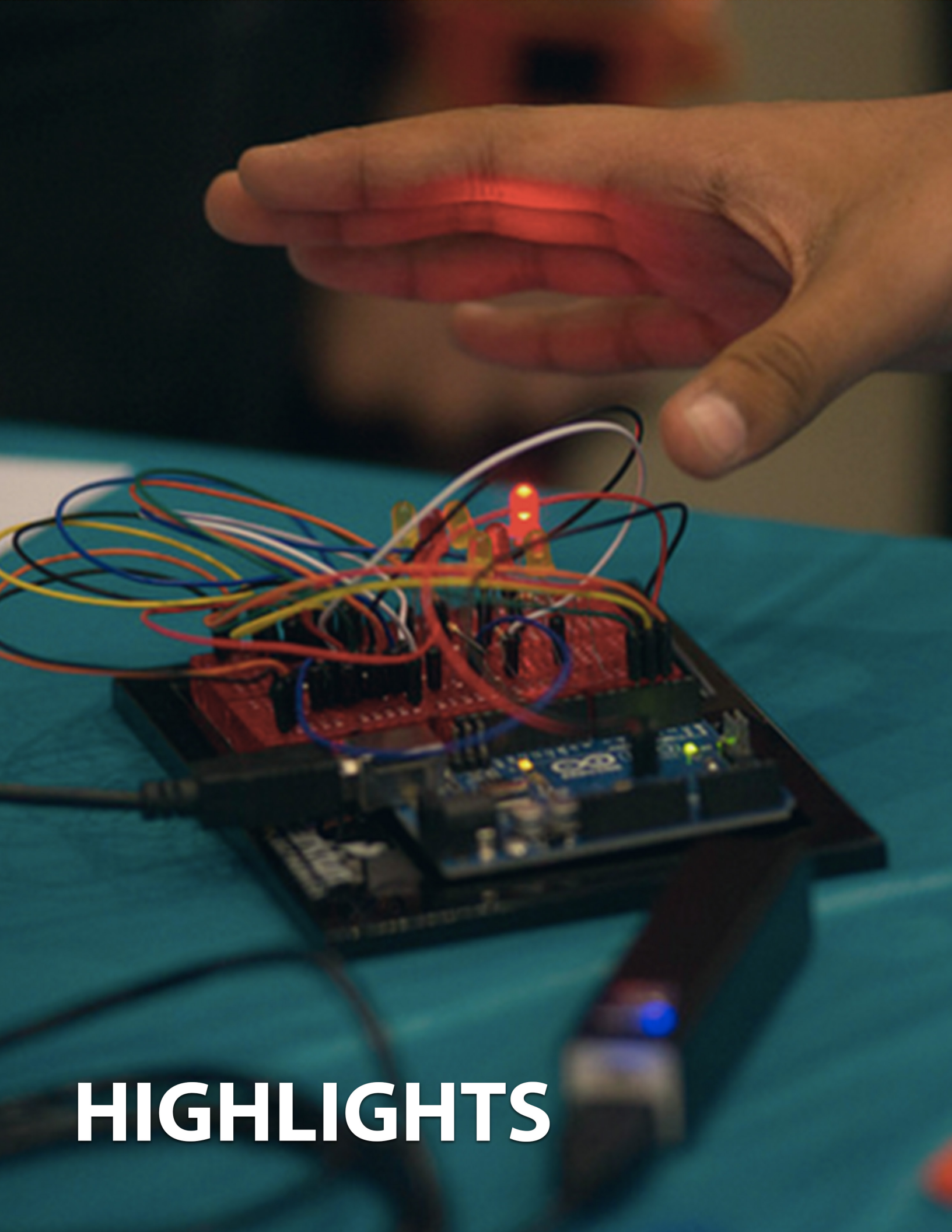
HIGHLIGHTS

CS4ALL

Announced in September 2015, Computer Science for All (CS4All) is the first-of-its-kind, 10-year initiative to scale Computer Science education to 100% of the city's public schools. CS4All is a historic public-private partnership that includes CSNYC, the Mayor's Office, the Fund for Public Schools, the NYC Department of Education (DOE), and a range of foundation, corporate, and individual funders.

BY 2025
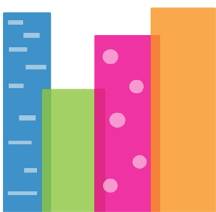
Scale CS education to 100% of NYC's 1.1 million students

Reaching more than 240,000 students annually

By training nearly 5,000 public school educators to teach CS

"A Computer Science education is literacy for the 21st century."

NYC Mayor Bill de Blasio
CS4All Announcement
September 2015

AFSE

Founded by CSNYC board members Fred Wilson and Evan Korth, in collaboration with City Hall and the Department of Education, the Academy for Software Engineering (AFSE) was created as a new public high school that would set the standard for Computer Science education in New York City. This year, AFSE graduated its first class of 126 students.

"AFSE's 2016 class represents the next generation of independent thinkers, socially-conscious leaders, and innovative entrepreneurs. These students have set a high bar for excellence at AFSE and we look forward to continuing our commitment to developing the next generation of young leaders," said Seung Yu, Principal at AFSE.

The vanguard school's doors opened in 2012 with a cohort of 126 freshmen. With support from CSNYC, AFSE's reputation has spread as a school dedicated to providing students with academically rigorous curricula, a wealth of resources, and access to New York City's technology and startup community.

CSNYC EDUCATION MEETUPS

The CSNYC Education Meetup was created in November 2013 to build a community of professional practice around Computer Science education in New York City. The CSNYC Meetups enable purposeful networking and knowledge-sharing among educators, administrators, technologists, volunteers, and others committed to K12 CS education. Meetup topics have included CS and the Arts, Translating Research into Practice, Creative Computing with Scratch, Careers in Computing, and Women and Girls in Computing.

1,793
MEMBERS

738
NEW MEMBERS SINCE SEPTEMBER 2015

42
MEETUPS SINCE LAUNCH

"After talking with many of these students, I know how valuable a day like today can be to inspire and connect them to the industry."

Panelist at the CS Fair 2016

The NYC Computer Science Opportunity Fair (CS Fair), presented by CSNYC and Microsoft TEALS, is New York City's largest annual college and career exploration event for public high school students studying Computer Science. The inaugural CS Fair in 2014 hosted 300 students and 20 companies and colleges. In its third year, the 2016 CS Fair hosted 1,850 students from 62 schools across all five boroughs, as well as 100+ companies, colleges, and extracurricular programs.

The CS Fair aims to inspire the next generation of computer scientists, entrepreneurs, and engaged tech sector employees, and excite students about the myriad educational and career opportunities that result from studying CS.

BUILDING A COMPUTER SCIENCE TEACHER PIPELINE

The expansion of CS to NYC's public schools needs to be high-quality, rigorous and sustainable. The average NYC teacher spends 10.6 years in the classroom. In order for all students to have access to quality Computer Science after the CS4All 10-year initiative comes to a close, schools must be able to hire qualified CS teachers in the same way they hire other subject teachers and existing teachers need ongoing opportunities for growth. CSNYC has been working with postsecondary institutions to initiate a teacher pipeline with both CS content and pedagogical content knowledge through coursework. Additionally, CSNYC supports a variety of opportunities for existing teachers to further their knowledge through workshops, meetups and community events, or teacher internships with companies to create teacher leaders for the NYC community.

KNOWLEDGE FORUM

Since its founding, CSNYC has been committed to identifying the key research questions facing the implementation of K-12 Computer Science education in NYC and to pursuing such an agenda in a strategic and coordinated way. With the launch of CS4All, this became an imperative and an opportunity for researchers in NYC and nationwide. This year, CSNYC held its first Knowledge Forum on April 14th, bringing together over 60 academics, research firms, consultancy firms, pracitioners, and funders.

SUPPORTED PROGRAMS 2015-16

THE BRONX

AFSE	1
BASE	1
Bootstrap	4
Code.org	7
SBECA	1
ScriptEd	1
SEP	4
TEALS	2

MANHATTAN

Bootstrap	8
Code.org	13
ScriptEd	14
SEP	2
TEALS	5

QUEENS

Bootstrap	2
Code.org	14
ScriptEd	1
SEP	6
TEALS	1

STATEN ISLAND

Code.org	6
SEP	2

BROOKLYN

Bootstrap	10
Code.org	16
ScriptEd	15
SEP	4
TEALS	10
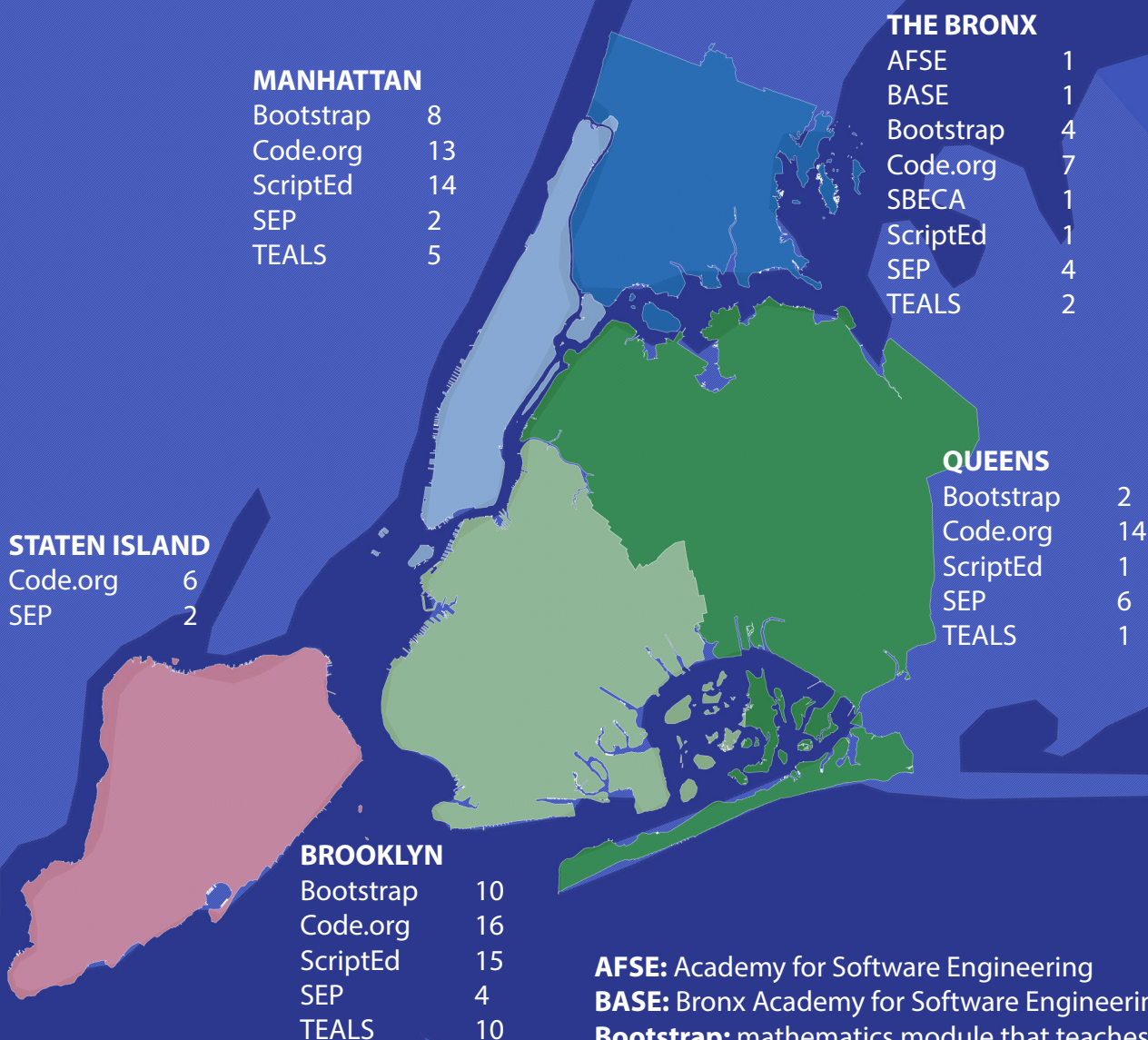
AFSE: Academy for Software Engineering
BASE: Bronx Academy for Software Engineering
Bootstrap: mathematics module that teaches algebraic and geometric concepts through computer programming
Code.org: partnership with the NYC DOE to offer Exploring Computer Science.
SBECA: South Bronx Early College Academy
ScriptEd: equips students with fundamental coding skills and professional experiences
SEP: The NYC DOE's comprehensive computer science and software engineering education program
TEALS: Microsoft's Technology Education and Literacy in Schools, teacher and school CS training program

CSNYC TEAM

STAFF

Michael Preston, *Executive Director*
Maor Baror, *Community Manager*
Leigh Ann DeLyser, *Director of Education & Research*
Kelsey Finkel, *Director of Strategy & Evaluation*
Serene Gallegos, *Director of Development*
Jumee Song, *Senior Program Manager, CSforAll Consortium*
Mary Ellen Sullivan, *Director of Industry Partnerships*

BOARD OF DIRECTORS

Fred Wilson, *Chairman*
Sarah Holloway, *Vice Chair*
Evan Korth, *Vice Chair*
Tarika Barrett
Michael Carter
Michael Dubno
Melissa Goldman
Doug Jaffe
Michael Preston, *Executive Director*
Hope Taitz
Pedro Torres-Mackie

OUR PARTNERS

Our work would simply not be possible without private sector support and advocacy. The Founding Partners program was created to formalize and energize industry engagement. Each company's annual support helps bring innovative computer science programs to grades K-12.
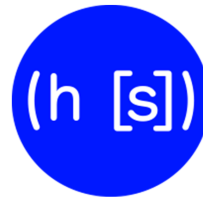
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Blue Apron

CB INSIGHTS

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JUSTWORKS.

KICKSTARTER

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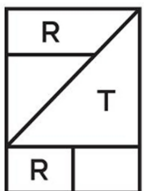Plough Penny Partners

POSTLIGHT

QUOTIDIAN ventures

REBOOT

RESY

Return Path

RC VC

svb Silicon Valley Bank

SIMULMEDIA

stackoverflow

techstars

USV

Tusk Ventures

WARBY PARKER

xo group/

yext

SUPPORTERS

Computer Science for All (CS4All)

The Solomon Wilson Family Foundation*
Robin Hood Foundation*

Alexandria Real Estate Equities, Inc.
AOL Charitable Foundation
Association for a Better New York Foundation
Ron and Topher Conway
Daniel and Jane Och Family Foundation
May and Samuel Rudin Family Foundation
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Computer Science College & Career Fair
AOL Charitable Foundation
Facebook
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Resy Network
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