



# Yeshiva College Department of Computer Science

2018-2019 Report



# Results



# Summer 2019 Internships

## Tech

- Google
- Amazon
- Facebook
- SAS
- Zylotech
- 1010data
- HubSpot
- Zeno Media
- Garb Consulting

## Finance Technology

- JPMC
- Citi
- Prudential
- BNY Mellon
- TIAA
- Straterix
- Broadridge Financial Solutions
- Cross River Bank
- TSG
- US Bank

## Other Industries

- Siemens
- The Center for Clinical Data Science (Massachusetts General)
- research at the Technion
- research at Bar Ilan
- Birthright Excel Ventures Fellowship
- OU
- Yachad
- Applied Research & Community Collaboration (ARCC)



# Class of 2019 Full Time Job Placements

- BlackRock (Also received offer from Amazon)
- Goldman Sachs
- Disney Interactive (Also received offer from Amazon)

Note: the class of 2021 will be the first class to have started the CS major from their first semester in the new, revamped department



# Increases in Enrollment

- The Summary statistics below give a quick overview of the increases in total registration, rate of continuation in the major, and total unique students in advanced Computer Science classes.
- The major has grown significantly since a 2016 gift enabled YU to reinvest in CS

	2015-2016	2016-2017	2017-2018	2018-2019
Total Registration in C.S. Courses	210	210	238	287
Increase in Total Registration	NA	0.00%	13.33%	20.59%
<b>Intro to C.S. --&gt; Data Structures Continuation Rate</b>	<b>1 out of 6.6</b>	<b>1 out of 1.5</b>	<b>1 out of 1.03</b>	<b>1 out of 1.26</b>
Unique Students Beyond Intro	42	53	65	69
Increase in Unique Students	NA	26.19%	22.64%	6.15%
<b>Increase in Total Registration (2018-19 vs 2015-2016)</b>				<b>36.67%</b>
<b>Increase in Unique Students Beyond Intro (2018-19 vs 2015-2016)</b>				<b>64.29%</b>



# Testimonials



**Rich Dutton, Adjunct Professor of Computer Science, Head of Machine Learning for Corporate Engineering, Google**

“It's a pleasure teaching machine learning to the students in YU. The class is kind and respectful and with such work ethic and intelligence that we've been able to cover Machine Learning in breadth and depth in just a single semester.”



Josh Belanich, a software engineer on Rich's team who gave a lecture, added the following: “It was an absolute joy to teach the students at YU. The students were super sharp and asked excellent questions. I was impressed with their maturity in our discussion around tricky topics like ML fairness, and they quickly grasped advanced topics in machine learning that are highly relevant for building models in the real world.”



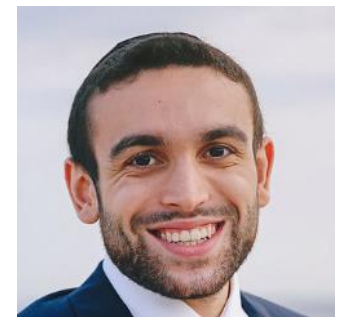
# Class of 2019



## **Jacob Saks, BlackRock, Class of 2019**

“Two years and hundreds of hours of coding later, I cannot be more thrilled with the leap of faith I took [switching to a computer science major]. I have been constantly challenged, inspired and pushed to excel. I genuinely feel that I have received the tools and skills necessary to succeed in the industry. Over the past six months, I have interviewed with

Google, Facebook, Amazon and BlackRock among others and have been shocked at how prepared and comfortable I felt with my abilities. I received offers from both Amazon and BlackRock and made final-round interviews at Google and Facebook. I believe it is a testament to the incredible job that is being done by the faculty in YU’s Computer Science Department.”



## **Avi Katz, Goldman Sachs, Class of 2019**

“I was about to start studying for actuarial exams when I took Introduction to Computer Science. Under the new department, I fell in love with computer science. Dr. Leff taught Intro with passion; he made it rigorous and challenging while keeping it extremely interesting. In general, the new department has put computer science on the map at Yeshiva College.

People are always asking me about whether or not they should take computer science classes, and the interest in the major, minor or just taking a few classes here and there has skyrocketed.”





# Class of 2018



## **Marty Spiewak, Software Engineer at Pivotal Software, Class of 2018**

“I think it is important that students have options when registering for classes; the department has created two new majors and added classes so that students now can choose the classes and the areas of study that most interest them. I work at Pivotal Software and am working on Cloud

Foundry, an open source, cloud-native platform to build and run software. I think my computer science education has helped me thrive, mostly because it taught me how to think. Our classes always had a strong focus on being able to apply what we learned to new scenarios and understanding how to think about problems before even attempting to create solutions.”



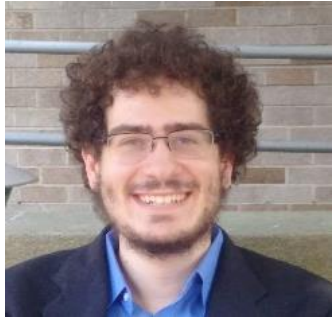
## **Adam Brasch, RIETS Student, Intern at Goldman Sachs, Class of 2018**

“I took four classes with Judah, and he did an amazing job bridging the gap [between] teaching the underlying principles clearly and thoroughly, while at the same time ‘wrapping it’ in the latest technologies and research. He did a very good job of exposing us not just to concepts, but to a real-world

project environment where we could apply all that we had learned beyond simply that which we had read in textbooks and learned in class. Judah took a more holistic approach, devising projects that included a wide array of pieces and required a multitude of skill sets, more similar to a typical enterprise environment. In addition, he was great at providing a balance of independence, guidance and collaboration, a pattern I found very helpful for integrating into the environment at Goldman Sachs.”



# Class of 2018 Continued, Class of 2017



## **Yehuda Gale, PhD Student in Rutgers, Class of 2018**

“Talking to my fellow graduate students who attended other undergraduate schools, I think I have had an above average education in computer science. I was able to quickly integrate into the courses at Rutgers, mostly skipping the master's level courses and going right into the higher level ones. Without the connections and classes in the new

Yeshiva College computer science program, I would have had trouble with the machine learning heavy courses, such as NLP, which I took this semester.”



## **Mordechai Djavaheeri, RIETS Student, Class of 2017**

“As someone who went through three years of the old YU computer science program, I can gladly say that I'm so proud and privileged to have had Judah's guidance, intensity, demanding and candid personality driving me forward to achieve and succeed, not just in college but throughout a lifelong career. The organization and research he put into restructuring the

program [put it] on par with the best universities in the country and what major employers want students to know. The projects I see current students engrossed in are quite impressive, and the guest speakers have delivered in eye-opening, edifying, and enjoyable talks.”



# New Faculty



# Richard Dutton, Adjunct Professor of Machine Learning



Richard Dutton is the head of machine learning for corporate engineering at Google. Prof. Dutton taught a highly successful course in Machine Learning this spring. The students loved the course, and Prof. Dutton will be teaching “Data Science Applied” this Fall.

## Prof. Dutton’s professional background:

- **Google: Dec. 2017 - Present** Head of Machine Learning for Corporate Engineering
- **Millennium: 2017** Head of Data Analytics and Cloud Application Development
- **Barclays: 2005-2014** Director; Head of Rates Technology Asia
- **Microsoft: 2000-2001** Speech Recognition



## F. Patricia Medina, Assistant Professor of CS



Dr. F. Patricia Medina joins the YC CS department with over a decade of teaching experience. Her research has been funded by the NSF and Microsoft Corporation. Starting this Fall, Dr. Medina will be teaching Data Science courses.



# Avi Rosenfeld, Adjunct Professor of CS



Dr. Avi Rosenfeld is an alumnus of MTA, YC, RIETS, and Azrieli. He received his PhD in CS, with a focus on Artificial Intelligence, for Bar Ilan in 2007, and has over 80 publications. Dr. Rosenfeld has over 20 years of teaching experience. Starting this Fall, he will be teaching the YC CS courses in Artificial Intelligence and in Natural Language Processing



# 2018-2019 Events





## Innovation, Autonomous Vehicles, and Purpose

Speaker

**Mois Navon**

Mobileye

*Southern California surfer becomes inspirational Rabbi...*

*A startup in a Jerusalem home becomes \$15.3B acquisition for Intel...*

This talk charts a course driven by passion and purpose. It starts with surfing the beaches of California and travels through designing the System on a Chip powering the autonomous vehicle revolution and bringing inspiration to people of all walks of life. As we stand both at the start of a new academic year and one week before the *Aseres Yemei Teshuva*, this is not a talk to miss!

**Tuesday, September 4 • 7 p.m.**

Furst Hall, Room 501



Yeshiva University  
YESHIVA COLLEGE



YESHIVA UNIVERSITY PRESENTS

# TechUcation

**OCTOBER 30 | 7PM**

FURST HALL, 5TH FLOOR

---

Interested in working in the field of technology? Come learn about various areas of the Tech industry and network with top professionals in financial technology, software engineering, and data analytics.

The event will consist of a keynote speaker, two panels moderated by Google Recruiter Brendan Collins, and networking with professionals.

Open to all students interested in the technology sector.

## **Keynote Speaker: Claudia Perlich**



- Senior Data Scientist at Two Sigma
- Advisory Scientist at Dstillery
- Adjunct Professor at Stern NYU
- Yeshiva College Computer Science Advisory Board Member

**RSVP in YUCL Workshops**



# STORING THE WORLD'S DATA

*Guest Lecture with*

**Dr. Joel Wein**

Director of Foundations of Storage, Google

Storing Google-scale amounts of data requires the solution of hard problems in diverse domains, including supply chain, finance, system and software design and hardware development. We'll discuss a few of these problems and explain how Google solves them. We'll also talk about the role that sophisticated visualization plays in their solution.

**Tuesday, November 27 • 5:45 p.m**  
**Furst Hall, Room 501**



The Google logo, consisting of the word "Google" in its characteristic multi-colored font (blue, red, yellow, blue, green, red).



Sponsored by the Yeshiva College Computer Science Program

# The Essential Role of Failure in Reaching Your Greatest Potential

Dr. Yehudit Abrams discusses the role which setbacks and failure played in her becoming a mechanical engineer at Hewlett Packard, Intel, and Novellus, a physician, a NASA scientist, and now founder and CEO of MoniHer, a startup which won Israel's WeWork Creator Award. Dr. Abrams will also discuss the Israeli tech scene, as well as career paths, realities, and opportunities for students interested in the startup world.



Dr. Yehudit Abrams



Yeshiva University  
YESHIVA COLLEGE

**Wednesday, February 20**  
5:50 p.m. | Furst Hall, Room 535



# YC Computer Science Department Hosts Hackathon

By CJ WIESENFELD

Yeshiva College hosted a workshop and hackathon featuring the company AdaCore on Feb. 15 in Furst Hall classroom 535.

According to its website, AdaCore “build[s] tools and provide[s] services that ease the complex and often difficult process of developing high-integrity software.” These tools and services serve several languages such as Ada, C and C++.

The hackathon took off with a crash course in which the Ada software engineers laid out the basics of the signature AdaCore programming language. After a coding exercise, students were introduced to the language on a deeper level, including its approach to type safety, arrays, stacks and functions. Finally, the students proceeded to the feature presentation of the hackathon — a debugging exercise with Ada’s Child language, SPARK.

---

*“It’s great that the computer science department is working on having these events for us, and I hope it continues.”*

—  
Yehuda Goldfeder (YC ‘20)

---

By the time it ended, students had spent close to five hours gaining computer science skills and interacting with Ada software engineers.

YC Computer Science Chair Judah Diamant explained, “The hope is that hosting Adacore would expose students to professional grade, secure, real-time and embedded systems development.” He also felt that the hackathon would be a great opportunity for students to “connect with professionals in an area of computer science that they otherwise wouldn’t be exposed to.”

Student impressions were positive. “The exposure that we got to Ada showed us that

as new computer science students, it’s not difficult to pick up new skills as long as you know the basics. It showed us our potential,” said Aaron Bryer (YC ‘22).

Yehuda Goldfeder (YC ‘20) said, “The Adacore event was great. Not only did we get free swag, but we got to meet engineers from Adacore and learn a bit about what they do. It’s great that the computer science

department is working on having these events for us, and I hope it continues.”

The positive response went both ways. Rob Tice, an AdaCore software engineer, was impressed with the students. “Everyone was really engaged. I was really excited that everyone was so interested,” he told The Commentator.

The hackathon was part of YC’s larger

effort to up its tech game. Other efforts included in this venture was the recent hiring of several new professors, the creation of two new specialized tracks, the instantiation of an industry advisory board consisting of leading professionals in the field and a sharp increase in tech events, including last semester’s Teclucation.



Students collaborate at the YC Hackathon.