## Yeshiva College Computer Science

Judah Diament

### Goal: Careers at the Top of the Industry

We are <u>not</u> focused on students getting their first job – that's relatively easy for any competent "programmer" ...

...but if someone is just a simple "programmer", he will generally switch careers or be unemployed by the time he is ~15 years into his career

Our goal is to prepare our students to compete for the best C.S. jobs and for lifelong success at the highest levels of the industry

This requires a rigorous mastery of C.S. fundamentals, along with expertise in a C.S. specialty which is always in demand

### Faculty Statistics

153+ years of <u>full-time</u> corporate experience across Amazon, Citi, Goldman Sachs, Google, IBM, Intel, and others

69 issued U.S. patents

200+ publications

## mon Questions / Mistakes



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#### Common Questions / Mistakes

O: Does being a software engineer involve sitting alone at my computer all day?

A: NO! 99.9% of significant software is not built by individuals. Software development is a team activity.

Just as an example, the SE@Google book spends chapters 2-7 talking all about teams!







#### The Real Factors for Success

### Programming vs. C.S. A Trivial Banking Example

The Challenge: 10,000,000 items need to be compared to each other (some balance each other out in terms of risk, etc.) in order to produce a bank's daily balance sheet.

Novice programmer's solution: compares each item to each other item. Runs for 1.16 days on a modern computer (and results in a very angry boss!)

A Computer Scientist's Solution: uses, for example, functions and hash tables. 37 le,

### Tracks in the Major:

Two Bachelor of Science tracks.

designed to prepare students to <u>directly</u> enter the job market.

have more C.S. requirements, fewer non-C.S. requirementsed to p

-	Calculus I (MAT 1412)	Linear Algebra (MAT 2105)
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	Calculus I (MAT 1412)	Calculus II (MAT 1413)
	Linear Algebra (MAT 2105)	Multivariable Calculus (MAT 1510)
		Probability Theory (MAT 2461)
	Mathematical Statistics (MAT 2462)	
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### Does Industry Care?

The two B.S. in Computer Science programs at Yeshiva provide what

## Y.C.C.S. Results

#### Y.C. C.S. Class of 2024

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27 students received job offers, from companies including:
    Amazon (return as intern while in RIETS)
    BNY
    Bank of America
    Capital One
    Geico
    Jefferies
    JPMC
    Nomura
    Palantir
    Prudential
    Raytheon
    Verisk
5 students received graduate school acceptances, including:
    Bar Ilan
    Georgia Tech (3 acceptances)
    NYU (2 acceptances)
    University of Illinois Urbana
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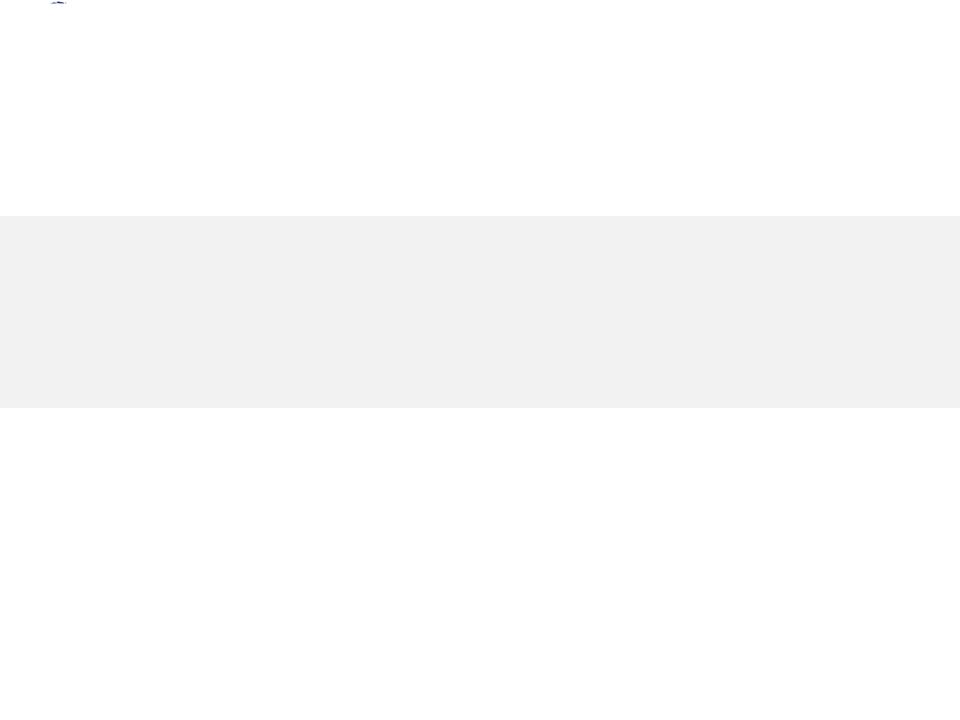
### Class of 2022 Job Offers



# Job Market

Tech Total Compensation (Base + Stock + Bonus)

## May 2017 Wall Street Journal Series, Even More True Today: Quants are the New Kings of Wall Street



## Judah Diament Professor, Department Chair

IBM T.J. Watson Research Center: 2000-2014

Patents: 14 U.S. patents issued

Publications: 5 conference papers, 1

journal article

Impacted multiple IBM software products, including shipping code

Goldman Sachs: 2014-2016

### Dave Feltenberger

Adjunct Professor

Prof. Feltenberger currently teaches: Machine Learning, Machine Learning Applied, and Al Capstone Project

Prof. Feltenberger's professional background:

Google, 2012-Present: Principal Engineer, Technical lead for Semantic Location. Previously -Senior Staff Software Engineer, Quality & ML in Google Maps; founder of Corp Eng ML team

Goldman Sachs: 2010-2012 Senior Software Engineer, post-execution trading platform

#### Peter Grabowski

Adjunct Professor



Prof. Grabowski currently teaches Machine Learning Applied in Yeshiva College and is on the Data Science faculty of University of California, Berkeley.

Prof. Grabowski's professional background:

Google, 2017-Present: Professor Grabowski currently leads the Core ML's <u>Gemini</u> applied research team. He previously led Google's Enterprise ML team.

Nest, 2014-2017: founded data integration and ML team

## Avraham Leff Professor

PhD, Computer Science, Columbia University: 1992

IBM T.J. Watson Research Center: 1991-2017

Patents: 21 U.S. patents issued

Publications: 45 conference papers & journal article Impacted multiple IBM software products, including shipping code

Ramesh Natarajan Adjunct Research Professor

PhD, University of Texas at Austin

## Avi Rosenfeld Adjunct Professor



PhD, Computer Science / Artificial Intelligence, Bar Ilan: 2007 Associate Professor, Machon Lev, Jerusalem

Head of Data Science Program

Publications: 80+

Patents: 3

One of four member of Israel's Education Counsel responsible for judging all academic degrees in Data Science Alumnus of MTA, YC, RIETS, Azrieli Avi's LinkedIn Page

## Ben Wymore Clinical Professor



M.S. in C.S., University of Minnesota: 1997 Intel Research: Software Engineer Crestron Flectronics: Senior Software Engineer & Team lead Patents: 9 U.S. patents issued