James Diao

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Education

Yale University
Prospective B.S., Statistics & Data Science, Molecular Biophysics & Biochemistry (with honors)

Class of 2018

YSEA Academic Achievement Award (top 9 STEM juniors by GPA) | MCAT: top <1%

William P. Clements High School

GPA: 4.00, magna cum laude | Full score on the SAT, 14 AP Exams, and 4 SAT II Subject Tests

Sugar Land, TX

Class of 2014

Research Experience

Yale University | Computational Biology | Mark Gerstein Lab

May 2015 - Present

- Built a cellular atlas and NMF classifier for tissue deconvolution of exRNA samples.

2 years

- Built a public analysis tool for visualizing exRNA datasets (http://exrna-atlas.org/exat/precomputedJobs).
- In preparation: (1) paper on exceRpt (an exRNA-seq analysis pipeline) and (2) paper on the exRNA Atlas.

Harvard Medical School | Biomedical Informatics | Isaac Kohane Lab

Jun 2016 – Present

- Estimation of penetrance for incidental genetic findings across ancestral populations.

1 year

- Developing clinvaR, an R package (code library) for gene-level analysis of variants.
- In preparation: "The predictive capacity of secondary genetic findings in six cardiac conditions" (1st author).

Posters & Presentations

- **Lightning Talk**: Hybrid Scholarship Symposium at Yale Apr 2017

- Plenary Speaker: Yale Undergraduate Research Conference

Jan 2017

- Presentation (Finalist): Science & Technology Awards for Research at Columbia

- Concluding Presentation: Harvard-MIT Summer Students Conference

Apr 2017 Aug 2016

- **Posters**: New England Science Symposium (Harvard, Mar 2017), Yale Day of Data (Dec 2016),

Columbia Undergraduate Research Symposium (Apr 2016)

Awards & Fellowships

- Yale Science & Engineering Association Award for Outstanding Academic Achievement, Junior Class Apr 2017

- 1st Place Team, American Statistical Association DataFest Competition at Wesleyan University (\$200)

Apr 2017

- Max and Reba E. Richter Fellowship for Independent Study and Research (\$1,000)

Summer 2017

- Harvard-MIT Health Sciences & Technology: Summer Institute (\$8,000 over 2 years)

Summers 2016-2017

- Yale College Freshman Summer Research Fellowship in the Sciences & Engineering (\$4,300)

Summer 2015

- 1st Place Overall, Bronze Am. Smooth & Int. Standard, Worcester Ballroom Dance Competition (\$120)

Jan 2016

- Schlumberger Founders Merit Scholarship: top 8 in the nation (\$20,000 over 4 years)

May 2014

Extracurricular

- Yale Ballroom Dance Team | Team Captain, USA Dance Silver Competitor

Sep 2014 – Present

- HAVEN Free Clinic | Nutritional/Dietary Counselor | 81 hours

May 2015 - Present

- Organic Chemistry Peer Tutor | Office hours twice a week for a class of over 200 | 105 hours

Aug 2015 – Present

Skills & Coursework

Computational: R (incl. Markdown, Shiny), Python, MATLAB, Java, UNIX, LaTeX, Git, MySQL.

Coursework: Multivariable Calculus, Linear Algebra, Probability and Statistics, Theory of Statistics, Biomedical Data Science, Computational Methods for Biological Data, Organic Chemistry, Biochemistry, Physical Chemistry, Physics.