# Leon Yin

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## **EDUCATION**

**NEW YORK UNIVERSITY** 

Bachelors of Science in Chemistry, May 2015 Minors in Computer Science and Math

# **COMPUTER SKILLS** years experience

Languages: Python<sup>4</sup>, Java<sup>2</sup>, Fortran, Javascript<sup>2</sup>, HTML5, R, MySQL, NoSQL

Programs: Matlab<sup>2</sup>, Photoshop<sup>6</sup>, Final Cut Pro, Wordpress

OS: Mac OS X, Linux/Unix, Windows

#### RESEARCH EXPERIENCE

June 2015 - August 2015

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

PI: Allegra N. LeGrande, NASA GISS and Center for Climate Systems Research

Built scalable framework to update, search and display the Global Seawater Oxygen-18 Database using Python Pandas. Extended legacy software to derive  $\delta^{18}O$  - salinity relationships in the Arctic Ocean using World Ocean Atlas 2001 and Fortran90. Implemented statistical analysis, automated quality checks and data visualization using NumPy, Basemaps and Matplotlib.

September 2014 – June 2015

CENTER FOR ATMOSPHERE AND OCEAN SCIENCES

PI: Leon Yin, K. Shafer Smith, Courant Institute of Mathematics

Worked with senior scientists to explore the Biological pump using a 1D  $O_2$  and  $CO_2$  enabled nutrient-phytoplankton-zooplankton (NPZ) model based on the heat equation, Sverdrup Critical Depth hypothesis and Redfield ratios (Thesis work).

March 2015 - May 2015

**ENVIRONMENTAL FLUID DYNAMICS LAB** 

PI: David Holland and Eric Johnson, Courant Institute of Mathematics Volunteered with Eric Johnson to build Python remote sensing algorithms to detect cloud cover and base heights using terabytes of ceilometer data.

April 2014 – December 2014

DEAN'S UNDERGRADUATE RESEACH FUND

*PI: Leon Yin, Brynn O'donnell and Mary Killilea, Biology and Environmental Studies* Project lead on 28-day experiment quantifying the effects of Ocean acidification on the physiology of *C. virginica* oysters through changes in water quality. Worked with research associate Regis Lasbleiz to culture phytoplankton and adjust pCO<sub>2</sub>.

## PROFESSIONAL TRAINING

NYU CENTER FOR GENOMICS AND SYSTEMS BIOLOGY, NEW YORK, NY

Research Technician, March 2015 – June 2015

Programmed algorithms for liquid-handling robot automation in Javascript.

Statistical analysis of flow cytometry output using R's bioinformatics modules.

#### **IENKEM MAGAZINE**

Editorial Intern September 2014 – January 2015

Formatted articles in Wordpress and gave the website a facelift.

# + POOL, NEW YORK, NY

Water Quality Technician, April 2014 - September 2014

Sampled and tested Hudson River bacteria, turbidity, color, temp, salinity, and pH for New York's first self-floating, self-filtering public pool.

## NYU OFFICE OF SUSTAINABILITY, NEW YORK, NY

Sustainable Energy Project Coordinator, May 2012 - September 2014

Supervised two student employees for university-wide LED lighting installations and compost collection expansion.

## ENVIRONMENT NY, NEW YORK, NY

Policy Intern, September 2011 – January 2011

Coordinated outreach for improved automobile fuel efficiency in New York State.

#### **GRANT HISTORY**

2014	NYU Green Grants, "One Man's Trash" (Video)	\$4000
2014	Dean's Undergraduate Research Fund, "The Effects of Ocean	\$1000
	Acidification on the Feeding Rates of Bivalves" (Presentation)	
2015	NASA GISS, "What is Past is Prologue" (Presentation and Poster)	\$4800

# **INVITED POSTER AND ORAL PRESENTATIONS**

- 2013 Association for the Advancement of Sustainability in Higher Education, Nashville TN (Presentation)
- 2015 Undergraduate Research Conference, New York NY (Presentation)
- 2015 NASA GISS NYCRI Symposium, New York NY (Presentation and Poster)
- 2015 NOAA CREST Research Symposium, New York NY (Poster)
- 2015 AGU Fall Meeting, San Francisco CA (Accepted)

## **VOLUNTEER HISTORY**

Oxfam America at NYU (President 1 year, Treasurer 1 year)

#### LANGUAGES

Native English speaker with working proficiency in Chinese and German.

#### PROFESSIONAL MEMBERSHIPS

American Geophysical Union and the Oceanography Society since 2015.

# **REFERENCES**

Allegra N. LeGrande

NASA GISS, Center for Climate Systems Research, Columbia University

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**Shafer Smith** 

Center for Atmosphere and Ocean Sciences, Courant Institute of Mathematics

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Mary Killilea

NYÚ Biology and Environmental Studies

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