# Jake Nieto

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#### **Education**

# **Brown University**

Concentrating in Computer Science & Economics GPA: 4.0

Expected May 2022

#### **Skills and Coursework**

Programming Languages/Technologies: Java, Python, JavaFx, Microsoft Excel, Word, PowerPoint Coursework: Intro to Computer Science, Analytical Mechanics, Honors Multivariable Calculus, Advanced Spanish I

# **Research Experience/Projects**

#### CS0150 Intro to Object Oriented Programing under Andries van Dam

September - December 2018

- Implement various mobile and classical games such as Pacman, Doodle Jump,
  Tetris and Fruit Ninja from scratch using the JavaFx library
- Developed an AI to play the classic game Pacman

#### Weismann Institute: International Summer Science Institute., Under Noam Morali and Aviram Steinbok

July 2018

"Reducing vibrations in quantum electronic ultra-low temperature measurements"

 Research in developing a double gimbal system to reduce mechanical vibrations that interfere with scanning tunneling microscopy. Collaborators: Dominic Agius, Georgina Menasche-Standen, & Minjae Yu

#### Stony Brook University: Simons Program., Under Dr. Steven Glynn Current

June - August 2017

"A Computational Analysis of medicinal Cannabinoids and other Ligands that Bind to Liver Fatty Acid Binding Protein"

 Research in developing pain therapies through use of the endocannabinoid system and fatty acid binding protein inhibition

# Angion Biomedica Corp., Under Dr. Prakash Narayan

June - August 2016

"Renal Parenchymal Area and Kidney Collagen Content in a Murine Model of Chronic Kidney Disease"

o Research in CKD and mathematical modeling. Correlated kidney collagen content with renal area. **Peer reviewed and published in: PLOS One & arXiv** 

"An Empirical Biomarker-based Calculator for Cystic Index in a Model of Autosomal Recessive Polycystic Kidney Disease – The Nieto-Narayan Formula"

o Research in ARPKD and mathematical modeling. Used preexisting data and quantified the relationship between ARPKD and urine/serum biomarkers. **Peer reviewed and published in: PLOS One, arXiv & bioRxiv** 

#### MediAlarm Mobile App

2016

• Collaborated on a team of 3 to develop an app to aid those with memory degenerative disorders and cognitive impairment with taking prescription medication on time

# **Job Experience**

#### Brown University Work Study: Special Collections-Reader Services at John Hay Library

2018

2017

- Informing patrons of rules and regulations of the library
- Paging rare books and manuscripts from closed stacks and assisting patrons with JOSIAH and the card catalog

• Rensselaer Polytechnic School Medalist - \$100,000 Scholarship for achievement in science and math

- Typing, copying, filing, answering phones, etc.
- Assisting with book shelving and reserves, and searching for missing books

# Leadership Experience and Awards

President of High School Science Honor Society	2018
President of High School Spanish Honor Society	2018
Board of Directors for the town of Commack's Interact (rotary) club	2018