

# Peter Zhang

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## Education

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- University of California, Berkeley** Berkeley, CA Class of 2024  
*Computer Science BA*  
– Coursework: Linear Algebra/Circuits, Structure of Computer Programs
- Montgomery Blair High School** Silver Spring, MD Class of 2020  
*Science, Mathematics and Computer Science Magnet Program; 3.95 GPA*  
– Coursework: Complex Analysis, Statistics, Computer Graphics, Software Development, Artificial Intelligence  
– Activities: Debate Team, Programming Club, Business Club, Chamber Choir

## Skills

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### Languages

- Proficient: Java, Python w/ Jupyter Notebook, R w/ Shiny
- Familiar: HTML/CSS/Javascript, PHP/SQL,  $\text{\LaTeX}$

### Tools

- MS Office, MiniTab, Autodesk Inventor/Blender, Git, IDLE/Eclipse/IntelliJ

## Research Experience

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- Dividend Valuation for Resilience Infrastructure** May 2020–Present  
*National Institute of Standards and Technology; Dr. Jennifer Helgeson*  
– Review and annotate 50+ cost-benefit analyses of resiliency projects  
– Writing case study for valuing the co-benefits of wildfire-resistant infrastructure
- Interface for Transcriptional Pharmacodynamics** Jul 2019–Mar 2020  
*National Cancer Institute; Dr. Yingdong Zhao*  
– Scraped and reformatted the NCI database of 1 billion+ datapoints  
– Designed R Shiny interface for interactive plotting and statistical analyses
- Root and Rule-Based Natural Language Processing** Jun 2019–Sept 2019  
*National Institute of Standards and Technology; Dr. TN Bhat*  
– Automated the download of scientific articles and preprocessing of sentences  
– Designed a rule-based algorithm to construct subject-predicate-object triplets  
– Improved topic modeling and document clustering with root-and-rule terms
- Neural Cryptanalysis for Classical Ciphers** Apr 2019–Jul 2019  
*University of Maryland CS Department; Prof. William Gasarch*  
– Trained neural networks to decipher text with improvements in speed and accuracy  
– Generalized results across alphabetical languages and cipher types

## Professional Experience

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- Web and Research Assistant** Dec 2018–Present  
*Premier Debate Institute, Los Angeles; Bob Overing, Director*  
– Design and maintain webpages at premierdebate.com  
– Publish research briefings used by thousands of debaters
- Instructor** Jun 2020  
*War Room Debate, Austin TX; Aimun Khan, Director*  
– Created resource for a Lincoln-Douglas debate curriculum  
– Led a lab of 15 students for daily drills and lectures

## Awards

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National Speech and Debate Tournament; 6th Speaker	Jun 2020
USA Computing Olympiad; Platinum Division	Apr 2020
Ronald Reagan Great Communicators Debate; National Top 8	Aug 2019
American Regions Mathematics League; Division A, 8th Place	Jun 2019
International Mathematics Modeling Challenge; Finalist	Apr 2019
Blue Ocean Entrepreneurship Competition; Semi-Finalist	Mar 2019
High School Mathematics Modeling Challenge; Finalist	Feb 2019

## Projects

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<b>ScreenReader</b> VBA macro for reformatting documents to a screen-reader accessible format	Nov 2019
<b>Eye Coach</b> Mobile app with augmented reality to help people with autism train eye contact	Jan 2019
<b>Coaster Ranker</b> Neural network for predicting roller coaster ratings from height, speed, etc.	Nov 2018
<b>Speech4Me</b> Website to perform sentiment/complexity analysis of text and suggest edits	Oct 2018