

324 William St.  
Scotch Plains, NJ 07076  
908-312-0745

# DANIEL ZHENG

www.danielzheng.me  
/in/danielzheng256  
github.com/dzheng256  
[daniel.zheng@pitt.edu](mailto:daniel.zheng@pitt.edu)

## EDUCATION

<b>Pittsburgh, PA</b>	<b>University of Pittsburgh</b>	<b>May 2020 (Expected)</b>
<ul style="list-style-type: none"><li>Bachelor of Science in Computer Engineering, minors in Mathematics and Economics. Cumulative GPA: 4.0</li></ul>		
<b>Relevant Coursework</b>		
<ul style="list-style-type: none"><li><i>Ongoing</i>: Data Structures Computer Organization and Assembly Language, Linear Systems and Circuits, Digital Logic, Linguistics, Advanced Engineering Applications for Freshmen, Machine Learning by Andrew Ng (Coursera)</li><li><i>Completed</i>: Linear Algebra, Differential Equations, Honors Engineering Analysis, Physics 2, Principles of Scientific Reasoning, AP Computer Science, AP Physics C Mechanics, AP Physics C Electricity and Magnetism, AP Calculus BC, AP Statistics</li></ul>		

## WORK EXPERIENCE

<b>Undergraduate Research Assistant</b> <b>Pittsburgh, PA</b>	<b>University of Pittsburgh</b>	<b>January 2017-Present</b>
<ul style="list-style-type: none"><li>Member of Dr. Tae Min Hong's particle physics research group. Working on software for the ATLAS detector at the Large Hadron Collider run by CERN. <i>C++/Python/ROOT</i></li></ul>		
<b>Director's Assistant</b> <b>Westfield, NJ</b>	<b>NJ Workshop for the Arts</b>	<b>Summer 2014 and 2015</b>
<ul style="list-style-type: none"><li>Took inventories of, cleaned, and tuned instruments and performed various clerical tasks (filing, photocopying).</li></ul>		
<b>Web Coordinator</b> <b>Montclair, NJ</b>	<b>Taubman Piano Festival</b>	<b>2013-Present</b>
<ul style="list-style-type: none"><li>Created and sent emails to piano teachers and students worldwide, maintained website and social media.</li></ul>		

## ACTIVITIES

### Projects

- Tob**-Slack and Facebook Messenger bot that serves as a virtual assistant for Pitt Students. Answers common questions and provides convenient information about laundry, shuttles, and more. *API.ai, PittAPI, Python*
- SteelBeats**-Amazon Alexa skill that generates and raps rap lyrics from a Twitter feed. Scrapes the target user's Twitter account, constructs a Markov model, and combines that with a "Dope Learning"-derived model to create rhyming raps that have rhythm and reflect the interests found in the tweets. Made at TartanHacks 2017. *Python, Selenium, Node.js, AWS Lambda*
- Diagnose Me** (<https://goo.gl/9JC1np>)-Amazon Alexa skill that serves as a virtual medical assistant. Can send an emergency text message, give dosage information for O.T.C. medication, and perform preliminary medical diagnosis given symptoms. 1<sup>st</sup> Prize at the 2017 Pitt Challenge, Pitt's healthcare hackathon. *Node.js and AWS Lambda*
- Contact Me** (<https://goog.gl/z8DhM8>)-Android app that uses Java binding of Google's Tesseract OCR SDK. Converts picture to text that can be copied to clipboard, will eventually extract and save contact info to convert business cards to phone contact. Made at MHacks 8. *Java, Android Studio*
- DLA**-Modeled 2D/3D diffusion limited aggregation, simulating the collection of particles undergoing Brownian motion. *Python*
- Percolator** (<https://goo.gl/EPd6XI>)- Custom algorithms to model percolation across square and cubic lattices, as well as bond percolation across a square lattice. *C++*
- Blackjack** (<https://goo.gl/meYBME>)-Single player blackjack complete with GUI and multiple decks. *MATLAB*

### Open Source

- PittAPI**-Contributed to development of an API for Pitt. Created people and textbook APIs and documentation. *Python*

### Summer Programs

- NJ Governor's School in the Sciences** (Summer 2015): Selective state-funded summer program of 85 top math and science students. Classes in math, computer science, neurobiology, special relativity. As part of an eight-person team, completed an image recognition algorithm from scratch, wrote a research paper, and presented findings.

## AWARDS

- Merck James J. Kerrigan Scholar** (2016): One of 10/40 recipients nationwide to receive four-year scholarship.
- National AP Scholar** (2016): Averaged score of 4 or higher on at least 8 AP Exams. Scored 5/5 on all AP Exams.
- Presidential Scholar Candidate** (2016): U.S. Presidential Scholars Program, U.S. Department of Education.
- Pitt Full-Tuition Scholarship** (2016): Scholarship covering four years of tuition at the University of Pittsburgh.

## LANGUAGES AND TECHNOLOGIES

Intermediate: Java | C++ | Python | MATLAB | Office | Windows | Linux  
Basic: HTML | CSS | Javascript | Git | Visual Studio | Android Studio | ROOT