

# Alan

# Guo

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Design.

Deliberate.

Develop.

Proficiencies:

Python

C

HTML/CSS

Javascript

Adobe CC

MATLAB

Javascript Frameworks:

React.js

Redux.js

p5.js

Relevant Coursework:

15-112, Fundamentals of  
Programming

15-122, Principles of  
Imperative Programming

15-213, Introduction to  
Computer Systems

17-437, Web Application  
Development

15-539, Computer Science  
Pedagogy

Carnegie Mellon University, graduating May 2019  
B.S. in Materials Science and Engineering, Minor in Computer Science

Phillips Exeter Academy, graduated June 2014

## Experience

Incoming Software Development Engineer Intern, Amazon.com May 2018

15-112 Teaching Assistant, Carnegie Mellon University Jan. 2017 - Current

- Teach beginner and intermediate programming fundamentals in Python
- Rapidly debug and troubleshoot student code in office hours
- Teach, manage, and supervise 30-student section recitation

Research Assistant, Morphing Matter Lab, CMU HCII Sept. 2017 - Current

- Studied and developed shape-memory transformative textile systems
- Pitched in-lab project to design a full fashion line for Lunar Gala 2018

Research Assistant, Carnegie Mellon University June 2017 - Dec. 2017

- Determination of phase-separation temperature in symmetric polymer blends
- Utilized optical microscopy to characterize LCST behavior of polymer thin films
- Used OpenCV Python scripting to identify centroidal voronoi tessellations

Computer Science Teaching Assistant, SAMS CMU June 2017 - Aug. 2017

- Oversaw and taught two 60-person sections of underprivileged students

## Creative Work

Student Designer, Lunar Gala 2018 Oct. 2017 - Current

- Conceptualized and sketched a 10-look portfolio for a February 2018 show
- Finalized a line showcasing the potential of transformative textiles in fashion
- Fabricated and researched novel shape-memory textile production methods

## Projects

Frontend Developer, CMU CS Academy, 15-539: CS Pedagogy

- Used React.js and Redux.js to develop frontend interface for student learning
- Integrated Vimeo API into React and Redux to create a quizzing component
- Established content video production workflow and editing techniques

Texas Hold'em, 15-112: Fundamentals of Programming Term Project

- Created a fully-functional, poker AI and 1-player game in Python in one week

Grain Growth Model, 27-515: Introduction to Computational Materials Science

- Implemented cellular automata modeling techniques in MATLAB
- Modeled recrystallization, phase transformations and mesoscale processes