

# Vanessa Chen

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## Languages

**Proficient:** Java, Python, C

**Working Competency:**

HTML/CSS, JS, R

**Familiar With:** SQL, C#, MATLAB

## Software

**3D Design:** Fusion360, SolidWorks, AutoCAD

**Data Analysis:** ImageJ, Fathom

**Games / Robotics:** Blender, Unity, Arduino

## Coursework

### Duke University

- Data Structures and Algorithms (Java)

- Computer Architecture (C)

- Intro to Data Science (R)

- Technology Commercialization

### Planned (2020 Fall):

- Intro to Database Systems (SQL)

- Discrete Math for CS (Scheme)

### The Nueva School

- Advanced Machine Learning (Python)

- Computer Security (Python)

- Computer Internals

- Virtual Reality (C#)

- CAD for Social Good (Fusion360)

## Projects / Skills

### Video Game Development:

Mario-style Rolling Ball game (Unity), VR basketball shooting hoops game (Unity: C#), Pong Brickbreaker game (processing)

**Team USA Figure Skater (Jan 2007-Present):** Placed 10th globally at the Junior Grand Prix, and 3-time National competitor

## Education

2019 – 2023

**Duke University, GPA: 3.96/4.0**

Durham, NC

B.S. Computer Science, Psychology (Minor), Innovation and Entrepreneurship Certificate

2014 – 2019

**The Nueva School, UW GPA: 3.93/4.0**

San Mateo, CA

High School Diploma, Gap year 2016-17 to figure skate with Team USA.

## Work Experience

### Technical Internships

May 2020 —

**RetinalCare, Machine Learning Consultant**

Oklahoma City, Oklahoma

- Create machine learning models with Python to classify patients at high risk for treatable eye diseases leading to blindness (AMD, diabetic retinopathy)
- Developed models with 29% higher accuracy than baseline sorting of diabetes duration to identify people at high risk for diabetic retinopathy
- Developed models with 6% higher accuracy than baseline age-sorting of patients using minimal checkup data, allowing for ~56 more high-risk people to be called in for treatment of AMD

May 2020 —

**Sunforge LLC, Web Development Intern**

Somerville, MA

- Independently redesign website to boost SEO and implement new features using HTML/CSS, JS, and React; Ensure website is mobile-friendly

Jun – Aug 2017

**GetInsured, Automation Engineering Intern**

Mountain View, CA

- Saved the company 1,000+ hours of manual testing by automating an entire software portal's UI
- Ensured the quality and stability of a newly developed portal by leading script creation using Sahi, a JavaScript-based automation testing tool
- Ensured user-inputted data persisted to the backend using SQL

### Other Internships

May 2020 —

**Vector Rideshare, UX Design and Campus Ambassador**

Durham, NC

- Market / pitch to assist the growth of this student-run startup across campuses and improve / implement the rideshare app

Feb 2018 – Aug 2019

**Stanford University, Research Intern**

Stanford, CA

- Co-authored [paper and video](#) in JoVe, leading peer-reviewed video journal
- Spearheaded the creation and testing of 50+ microfluidic devices to analyze metastatic cancer cell nuclei deformation
- Independently devised molecular movement simulations to visualize experimental data with Blender and MATLAB

Jul – Aug 2019

**CPrime, Product Marketing and Management Intern**

San Mateo, CA

- Led campaigns to identify email marketing strategies and streamlined process for analyzing large datasets spanning 2019 by reorganizing the campaign setup structure, removing the need for manual data collection
- Initiated a more efficient marketing analysis method by creating a customizable excel template for future analysis

### Teaching Experience

Jan 2020 —

**Duke University, Data Structures and Algorithms TA**

Durham, NC

- Co-lead weekly discussion section of 20 students and hold office hours to help students work through projects/assignments

Aug 2019 —

**Duke University, CoLab Studio TA**

Durham, NC

- Assist 30+ students, faculty, and staff per week with 3D printing, laser cutting, electronics, and other fabrication tools in the creative maker space
- Repair and maintain 40+ 3D printers per week; recalibrating, unclogging, inserting new material, fixing camera issues

## Leadership

Sept 2019 —

**Duke Sheroes, Co-President**

Durham, NC

- Coordinated with industry professionals and Sheroes executive board to plan and organize events for women in STEM

Sept 2019 —

**Duke Impact Investing Group, Investment Analyst**

Durham, NC

- Work on a team of 3 analysts to identify promising environmentally-focused startups, to provide seed funding from our Duke Endowment of \$100,000