

# VANESSA CHEN

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## EDUCATION

**DUKE UNIVERSITY**, Durham, NC

*May 2023*

**B.S., Computer Science; Current GPA 3.96/4.0; Dean's List;** Psychology (Minor), Certificate in Innovation and Entrepreneurship

**Relevant Coursework:** Data Structures and Algorithms, Computer Architecture, Introduction to Data Science, Technology Commercialization

**THE NUEVA SCHOOL**, San Mateo, CA

*Jun 2019*

**High School Diploma, Unweighted GPA: 3.93/4.0**

**Relevant Coursework:** Advanced Machine Learning, Computer Security, Object-Oriented Programming, Computer Internals, Virtual Reality, CAD for Social Good, Entrepreneurship, Macroeconomics

## PROGRAMMING LANGUAGES & SOFTWARE

**Languages:** Proficient in: Python, Java; **Working competency:** C, R, HTML/CSS, JavaScript, SQL; **Familiar with:** C#, MATLAB

**Software:** Arduino, Mathematica, AutoCAD, SolidWorks, Fusion 360, ImageJ, Unity, Fathom, ApE, Blender

## RESEARCH & WORK EXPERIENCE

**RETINALCARE, Machine Learning Consultant**

*May 2020 – Present*

- Use Python to create machine learning models to classify patients at high risk for eye diseases (AMD, diabetic retinopathy)

**SUNFORGE LLC, Web Development Intern**

*May 2020 – Present*

- Redesign website and create interactive product selection tool using HTML/CSS, JS, React and Next.js

**DUKE UNIVERSITY, Computer Science TA (Data Structures and Algorithms)**

*Jan 2020 - Present*

- Co-lead weekly discussion section of 20 students and hold office hours to help students work through projects/assignments
- Concurrently take computer science education research course to better teach CS and help students retain knowledge
- Attend weekly TA meetings and grade exams and final

**DUKE UNIVERSITY, CoLab Studio TA**

*Aug 2019 - Present*

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

**STANFORD UNIVERSITY, Research Intern (Schools of Medicine & Engineering)**

*Feb 2018 - Aug 2019*

- Co-authored a [paper and video](#) in JoVe, leading peer-reviewed, PubMed-indexed 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
- Prepared two manuscripts discussing the implications of cancer cell nuclei deformation and oligomer analysis

**CPRIME, Product Marketing & Management Intern**

*San Mateo, CA; Jul - Aug 2019*

- 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

**GETINSURED, Automation Engineer Intern**

*Mountain View, CA; Jun - Aug 2017*

- 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 integrated automation testing tool and ensured user-inputted data persisted to the backend using SQL

## LEADERSHIP

**VECTOR RIDESHARE, UX Designer and Campus Ambassador**

*May 2020 - Present*

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

**NOVID, Media and Communications**

*March 2020 - Present*

- Create media and partnerships to help grow NOVID, an app that anonymously and reliably traces exposure to COVID-19

**DUKE IMPACT INVESTING GROUP, Investment analyst**

*Sept 2019 - Present*

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

**DUKE SHEROES, Co-President, Former Live Events Programming Director**

*Sept 2019 - Present*

- Coordinated with industry professionals and Sherobes executive board to plan and organize events for women in STEM
- Planning event in spring semester in collaboration with other diversity in STEM clubs on campus for 100+ students

## ACTIVITIES & PROJECTS

**VIDEO GAME DEVELOPMENT (Jan 2017-Present)** Developed a Mario-style ball-rolling game with Unity (monoscript), a VR basketball shooting hoops game in Unity (C#), and a Pong Brickbreaker game (processing).

**FOLDEX, Laptop Stand Inventor (Jan 2019-Present)** Developed multiple prototypes for a foldable, portable laptop stand

**TEAM USA FIGURE SKATER (Jan 2007 – Present)** Placed 10<sup>th</sup> globally at the Junior Grand Prix, and 3-time National competitor