

## EDUCATION

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- **University of California, Berkeley**  
*Master of Science in Electrical Engineering and Computer Sciences; GPA: 3.95;* 2019
- **University of California, Berkeley**  
*B.A. in Computer Science; B.A. in Applied Mathematics; GPA: 3.97; Summa Cum Laude;* 2017

## EMPLOYMENT

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- **Amazon Inc.** Seattle, WA  
*Software Engineer - [AWS Transcribe](#)* May 2019 - present
  - **Requirement analysis:** Work with product manager to gather requirements and provide feedback.
  - **System Analysis and Architectural Design:** Develop scalable, reliable and maintainable design.
  - **Implementation and Testing:** Write modular, readable and maintainable code with test-driven development.
  - **Operation and Maintenance:** Work as oncall to mitigate incidents and identify root causes; Find hot fixes and long-term fixes to keep AWS Transcribe highly available and reliable.
- **eBay Inc.** San Jose, CA  
*Site Reliability Engineer* Dec 2017 - Aug 2018
  - **Feature engineering:** Integrated into eBay Auth platform to increase mean time to failure (MTTF).
  - **Tool Engineering:** Developed tools to detect strong correlation between many different metrics during eBay site incidents to improve mean time to repair (MTTR).
  - **Capacity Planning:** Developed a neural network to predict future eBay infrastructure utilization rate.
  - **Operation and Maintenance:** Triaged eBay site-wise incidents, engaged engineering teams and facilitated postmortem.
- **Visual Computing Lab at University of California, Berkeley** Berkeley, CA  
*Researcher* Sep 2016 - May 2019
  - **Graphics:** Developed an eyeglasses-free display to accommodate for people with visual aberrations; the displayed image would be computationally generated so that it appears in focus to the viewer.
  - **Simulation:** Simulated the effects of diffraction of the pinhole mask of the vision-correcting display; compared the performance of the ray optics and wave optics model in determining image quality.
- **Mathematics Department at University of California, Berkeley** Berkeley, CA  
*Graduate Student Instructor - <https://johnzmartinez.github.io/Teaching.html>* Aug 2018 - May 2019
  - **Teaching:** Let Biweekly discussion sections with a group of 60 students on linear algebra, calculus and statistics; hold two office hours weekly and conducted review sections.
  - **Evaluation:** Wrote weekly quizzes and worksheets including solutions; Graded and proctored quizzes, exams and homework.

## PROJECTS

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- **Vision Correcting Display(Ongoing since 2016):** Developed display for people with myopia and hyperopia; Used OpenCV for eyetracking and OpenCL for simulation. For more info, please visit my website.
- **Raytracer:** Distributed raytracing on obj file inputs, with acceleration data structures for image rendering.
- **Gradient Domain Blending:** Developed an application to blend image smoothly using least squares solution.
- **Bear Map:** Built a mapping application with auto-completion, routing and location search functionality.

## HONORS AND AWARDS

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- **Summa Cum Laude:** Awarded to Top 2% of the 7500 students at 2017 graduation.
- **Eugene L. Lawler Prize:** Awarded at UC Berkeley computer science department commencement.
- **UC Berkeley EECS Honors Program:** Selective program for academically outstanding students for research.
- **Dean's List:** Awarded to top 4% of students at UC Berkeley.
- **AMATYC national math contest prizes:** First prizes at City College of San Francisco from 2013 to 2015.

## SKILLS

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- **Language:** Python, Java, Latex, C/C++, Ruby, SQL, Matlab, Linux, HTML, CSS, JavaScript
- **Framework and Technology:** Git, React, Java EE, Spring Boot