

# Esther Zhao

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## EDUCATION

Jun 2020 **Bachelor of Science, Computer Science**, *University of California - San Diego*  
Provost's Honors, GPA – 3.86

## EXPERIENCE

- Jun 2019 – **Software Engineering Intern**, *Visa*, Foster City, CA  
Sept 2019
- Designed and implemented a **React** application to access and change metadata properties of Visa Checkout
  - Built **NodeJS** and **Express** backend server to integrate with existing property lookup API
  - Redesigned existing UI portal to improve ease of use, resulting in 100% correct user flow for each task given
- Jan 2018 – **CSE Tutor**, *Computer Science & Engineering Department*, UC San Diego, La Jolla, CA  
present
- Analyze and debug students' code, and clarify programming concepts in **Java** and **C++** for Intro and Advanced Data Structures courses
  - Monitor online discussion forum, Piazza, to answer student questions
  - Collaborate with professor and team of 10-25 to grade projects and lead review sessions
  - Host one-on-one private tutoring sessions to explain course material in more depth
- Sept 2017 – **Graphic Designer**, *Muir College Student Affairs*, UC San Diego, La Jolla, CA  
Dec 2018
- Worked with **Adobe Illustrator** and **Photoshop** to create logos, merchandise, and marketing materials
  - Managed up to 3 projects per week dependent upon clients' requests
  - Projects produced contributed to raising over \$3,000 from 15% of sales for the John Muir College Scholarship by producing designs for college merchandise

## PROJECTS

- Apr 2019 – **Native Web Components | JavaScript**  
Jun 2019
- Lead sub-team of 5 within larger team of 12 to build custom vanilla JavaScript web components
  - Build and manage a working pipeline to incorporate continuous integration, unit and browser testing, and codebase styling
  - Communicate and delegate tasks amongst team members over Slack, Clubhouse, and Notion
  - Libraries/Technologies used: lit-html, LitElement, TravisCI, Test Café
- Dec 2018 – **Theta Tau LED Speakers | Python**  
Jan 2019
- Developed Python script to interface a WS2801 LED strip and Raspberry Pi upon startup through SPI connection
  - Took GPIO readings to reindex each LED light in a matrix to match the orientation of the lights on the speaker
  - Created a drawing interface to simplify drawing letters and sprite images on the screen
  - Displayed dynamic custom messages in infinite scroll pattern using a sliding-window approach
- Sept 2018 – **Mealtime | JavaScript**  
Nov 2018
- A mobile web application to find and filter recipes based on leftover ingredients
  - Designed and implemented frontend user interface in HTML5, CSS, JavaScript
  - Frameworks/Libraries used: jQuery, HandleBars, Bootstrap, URLSearchParams API, LocalStorage

## SKILLS

**Languages** Java, C++, C, ARM Assembly, Python  
**Frameworks** JavaScript, HTML, CSS, React, jQuery, LitElement  
**Other** Node.js, MongoDB, Express, Unix, Git, Unit testing, Vim, OpenGL