

# ESTEE TCHEAU

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<https://github.com/esteetcheau>

## EDUCATION

- University of California, Los Angeles** ..... *Los Angeles, CA 2020 - 2022*  
*Pursuing B.S. in Computer Science*  
*Technical Breadth Area - Technology Management*  
*Dean's Honors List*  
*GPA: 3.55*  
*Tau Sigma National Honor Society*  
*Golden Key International Honour Society*
- College of San Mateo** ..... *San Mateo, CA 2016 - 2020*  
*Certificate Program, University Transfer: IGETC/UC*  
*Dean's List - 6 Semesters*  
*Magna Cum Laude*  
*Phi Theta Kappa - Beta Xi Eta Chapter*  
*Associate in Science, Computer & Information Science*  
*Associate in Arts-Transfer, Economics*  
*Associate in Arts, Social Science*  
*Associate in Science-Transfer, Mathematics*  
*Associate in Science, Physics*  
*The American Mathematical Association of Two-Year Colleges Student Mathematics League*

## SKILLS

**Programming:** Python, Java, C++, JavaScript, HTML & CSS, Git, React, Node.js, Emacs, Shell Scripting, Linux, Assembly Language, OCaml, Web Development

**Foreign Languages, Arts, & Music:** French, Dance, Piano, Guitar, UCLA Taekwondo Club

**Film:** Photography, Photo-Editing, Adobe Photoshop, Adobe Lightroom, CorelDRAW

**Technologies:** Microsoft Word, Microsoft PowerPoint, Microsoft Excel, Slack

**Writing & Public Speaking:** Participated in numerous debates in high school & gave several live speeches, able to efficiently produce organized reports, write concise papers, & perform engaging and informative presentations.

## SAMPLE PROJECTS & INTERNSHIPS

### WingSpan – Web App Development 2021:

Python with Django, JavaScript with Node.js/React.js, Google/Twitter API



Sentiment analytics on Twitter keywords

### Petstagram – Web App Development

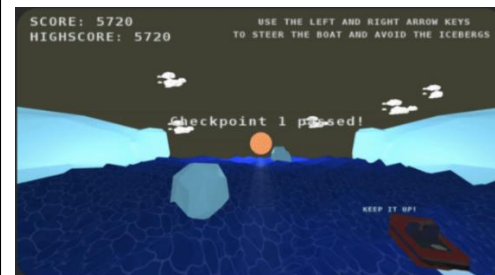
2021: JavaScript with Node.js/React.js, Firebase



Social media platform for pets

### Titanic Panic – 3D Game Development

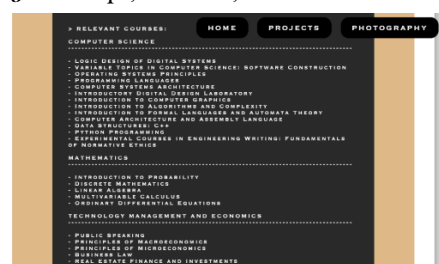
2020: JavaScript's tiny graphics library



Web based interactive game

### Portfolio Website Creation – 2021:

JavaScript, HTML, CSS



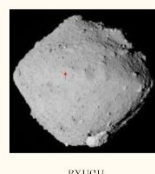
Showcases personal bio/achievements, LinkedIn & GitHub links, projects, and photography collection

### Differential Equations Modeling

Challenge – 2019: Tri-parametric kinetic & potential energy model

Method of Selection I

- To determine an appropriate asteroid to land on, use the following three-parameter model.
- Density ( $\rho$ ), Volume ( $V$ ), Velocity ( $v_0$ )  
$$R = \frac{2G\rho V}{v_0^2}$$
- If the asteroid is nearly spherical, then the above equation becomes a 4 parameter model. We add the drop distance  $d$  and the radius of the probe  $r$ .  
$$\frac{8\rho}{3} G\rho R^3 = v_0^2 R - v_0^2 (d + r) = 0$$
- Let density be that of spherical asteroid Ryugu & the speed of the probe as reported in the sources provided to us, then calculated  $R$  is 474.8 m. The actual radius is 450 m.

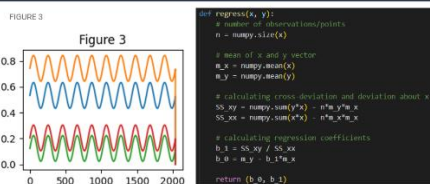


Creation of mathematical models to land a probe on a selected asteroid

### American CryptoFed – Internship 2021:

Ported MATLAB to Python for Linear Quadratic Estimator simulation

Generated Python Plot & Python Code for regress function (MATLAB)



Generated graphs showing changes in estimations of states with a Kalman Filter

## ADDITIONAL EXPERIENCES

- Hillsong**, Photographer & Photo Editor..... *San Francisco, CA 2017-2019*  
- Canon Rebel T7 & Adobe Lightroom. Photography seminars & social media content
- Bayer Ballet Academy**, Receptionist..... *Mountain View, CA 2018-2019*  
- Facilities management. Videography. Parent/Student communications. Dance music playlist creation.