

# Edgar Tejada

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## Technical and Personal Skills

10+ Years	5+ Years	2+ Years	Beginner
Linux Server	C++	SQLite	MIPS Assembly
Bash Scripting	Java	Python	Solidworks
MATLAB	git	LabVIEW	Windows SDK
Spanish	Wolfram Language	L <sup>A</sup> T <sub>E</sub> X	Mandarin Chinese

## Projects

### Bay Area Rapid Transit Geolocation System

<https://github.com/ejtejada/Geotaggers>

- ◇ Collaborated on an RFID location system for tracking maintenance workers in tunnels without GPS signal
- ◇ Wrote Python controls for the Raspberry Pi and antenna boards to secure wireless I/O at over 5 foot distances

### Society of Automotive Engineers Test Bench

<https://github.com/brevsae/sae-testbench>

- ◇ Employs Arduino controlled fans and kill switches to ensure battery temperatures remained below 60° C
- ◇ Streamlines battery simulations with MATLAB+Solidworks to actualize BMS of LiFePO4 cells in 17s6p array

### MacREU 2017 Image Processing

<https://github.com/ejtejada/MacREU2017ImageProcessing>

- ◇ Built Wolfram library for predicting position and analyzing triangular metals in florescent benzene baths
- ◇ Interpolated future positions of metal particles using similarity transforms and lagrange polynomials

## Experience

### Undergraduate Intern, Crypto Market Researcher

June 2019 to August 2019

Loopring, Shanghai, People's Republic of China

- ◇ Investigated the public actions of competing cryptocurrency exchanges and compiled findings into internal reports
- ◇ Presented biweekly reports to cross-functional teams composed of developers and the marketing team
- ◇ Debugged and documented TRON to ERC-20/Ethereum exchanging smart contracts in the Solidity language

### Undergraduate Intern, Material Science Department

June 2017 to August 2017

Materials Connection REU, University of California Riverside, Riverside, CA

- ◇ Implemented object tracking of transition metal nanolayers in Wolfram, lowering measurement times by 10%
- ◇ Developed library to interpolate future particle positions using similarity transforms and lagrange polynomial
- ◇ Improved reusability via libraries, documented the lab's Wolfram codebase, and automated offsite backups

### Supplemental Instruction Coach, Mathematics Department

August 2015 to May 2016

Supplemental Instruction Program, El Camino College, Torrance, CA

- ◇ Led weekly study sessions for students in College Algebra and Statistics that reinforced learning outcomes
- ◇ Designed robust practice exams based on the professor's notes and hosted timed mock exam sessions
- ◇ Built teaching materials and group exercises that fostered Socratic learning and critical testing strategies

## Education

University of California Merced, Merced, CA

May 2020

### Bachelor of Science in Computer Science and Engineering, Minor in Writing

Selected Coursework: Intro to AI, Numerical Methods, Writing in NatSci, Databases, Operating Systems, Computer Vision

El Camino College, Torrance, CA

December 2017

### Associates of Arts in English, Associates of Science in Physics

Selected Coursework: Creative Fiction, Public Speaking, Composition, Data Structures, Statistics, Optics + Modern Physics

## Leadership Roles

### Electrical Systems Officer @ Formula Society of Automotive Engineers, UC Merced

June 2018 to June 2019

- ◇ Implemented and tested electrical control and safety systems for a formula race car's high voltage components
- ◇ Modeled vehicle kinematics and optimized tire camber using MATLAB and Simulink

### President @ Inter-Club Council, El Camino College

August 2016 to May 2017

- ◇ Enforced parliamentary voting procedure for ICC, a student government that oversaw all clubs and charters
- ◇ Planned and followed a budget for all club funds, ensuring ICC transparently allocated its \$30,000 for all clubs

### Treasurer @ Programming Applications Club, El Camino College

August 2015 to May 2016

- ◇ Managed funds for registration fees and transportation to 2 annual hackathons in Southern California
- ◇ Ran weekly training workshops for C++ and algorithms to prepare 9 members for coding and design challenges