

# Mitchell Anthony Victoriano

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## EDUCATION

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San Jose State University, San Jose, CA

**BS Mechanical Engineering**

Fall 2014 – Spring 2019

**Minors:** Computer Science, Mathematics

GPA: 3.7

Dean's Scholar 2016 - 2019

Tau Beta Pi (Engineering Honors Society) – SJSU Eta Chapter

## UNIQUE COURSEWORK

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**Upper Division:** Thermal System Design, Partial Differential Equations, Linear Algebra I, Intro to Graph Theory, Numerical Analysis and Scientific Computing, Server-side Web Programming

**Graduate Level:** Computational Fluid Dynamics for ME

## SKILLS

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**Technical:** ANSYS (Fluent, Icepak, Static Structural), SOLIDWORKS, Creo/ProE, Full-Stack Web Development (HTML5, CSS3, JavaScript, PHP, MySQL), MATLAB, C, Java

**Languages:** Japanese – Intermediate Proficiency (JLPT N4-N3)

## PROJECTS

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### Biomass Fuel Synthesizer Subsystems

Fall 2018 – Spring 2019

- Created a water Thermal Storage system using two flat plate solar collectors to maintain 50 gallons of water above 35 °C
- Created a Data Collector using an Arduino that collected data from 8 different sensors over a 24-hour period
- Developed a Full-Stack web application that received data from an Arduino that organized and visualized data from a MySQL database
- Saved timestamped sensor data to an SD card and sent to a Web Server for data visualization

### Shower Heat Exchanger

Spring 2018

- Verified the design of a horizontal double pipe heat exchanger by using ANSYS Fluent
- Evaluated the cost effectiveness of the proposed heat exchanger design which is positioned underneath the shower floor and recovers wasted heat from the previously heated shower water

### Ball and Plate PID Controller

Fall 2017

- Prototyped a Ball Centering Table which would balance a foam ball in the center of a platform that would correct itself upon any external disturbances
- Utilized ultrasonic sensors, light dependent resistor (LDR) sensors, photo interrupters, servo motors, and an Arduino ATmega328 micro-controller

## EXPERIENCE

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### Goal Oriented Academics & Learning Sciences (GOALS) – Mathematics Tutor

Fall 2017

- Facilitated group and 1-on-1 tutoring in High School math subjects including Algebra I and II, Geometry, Pre-Calculus, and Calculus AB and BC
- Created grade level examinations and curriculum according to Common Core State Standards for Mathematics
- Managed IT computer maintenance including software installation, hardware repair, and troubleshooting