

## EDUCATION

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- **Utah State University** Logan, UT  
*Computational Mathematics Major; GPA: 3.87* *Aug. 2015 – Current*
- **Cuesta College** San Luis Obispo, CA  
*Three semesters to transfer; GPA: 3.95* *Jan. 2014 – May. 2015*

## EXPERIENCE

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- **USU Power Electronics Laboratory** Logan, UT  
*Software Engineer / Research Assistant* *Jan 2016 - Present*
  - **CAN Data Graphing Utility:** As a part of the AMPED project (geared towards extending battery life with smarter cycling) we accrued Terabytes of sensor data that needed to be visualized. I created a HTML5 asynchronous web-app for generating and sharing graphs of this data.
  - **Square One - Altium Library Management System:** I created a system for mass-submitting tickets for new parts to be added to our in-house Altium Database and verified by librarians. This system integrates with OctoPart and support auto-filling of data and will support BOM upload and automated price-minimizing order-form generation.
  - **Graphic Design:** I designed all the banners and window decals around our facilities in Logan, UT. In the process, I utilize a unified color palette for all the facets of our organization.
  - **Web Development:** I created the first revision of the SELECT website, which utilized a responsive single-page design and aesthetic harmony of data presented therein. The current website is not my doing, however.
- **USU GASLab** Logan, UT  
*Software Engineer* *Apr 2017 - Present*
  - **Cubium Software Project:** I am in the software team of the Get-Away-Special small-satellite program at Utah State University. We continue to develop open source subscription-based plug and play software for small satellite application as well as develop new hardware that will empower individuals to deploy experiments on a budget.
- **West Coast Astronomical Society** Santa Margarita, CA  
*Head of Mechatronics* *Jun 2014 - Jan 2015*
  - **Telescope Automation:** I was in charge of automating the hardware of a Meade 10" telescope with the intention of streamlining the process of speckle interferometry to more accurately detect the positions of binary star systems. I implemented new affordable tech that will enable more people to observe countless binary+ star systems.
- **Cuesta College** San Luis Obispo, CA  
*Tutor* *Aug. 2014 – May. 2015*
  - **Math / Physics Tutor:** At Cuesta College I tutored all levels of mathematics and frequently had teachers send students to me so that I could explain new concepts.

## ACHIEVEMENTS

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- **USU Hackathon - 1st Place:** I took first place at the Utah State University intercollegiate hackathon for my solo development work on a procedurally generated terrain-based music visualizer entitled "Acoustic Forest".
- **USU - Deans List:** I am a current member of the Dean's List at Utah State University.
- **Cuesta College - FBSA:** I was awarded the Frank Brown Science Award for outstanding academic achievement.

## PROJECTS

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- **8 Bit Spaghetti:** 8-bit processor that I designed and built using TTL. I have now helped many students around the world build versions of my design.
- **Dream Cloak LED Display:** In five days I designed and built a 15x30 24-bit wearable RGB LED display and a web app to control it wirelessly.
- **Euler Golf:** HTML5 game based on a problem I conceived involving recursive movement over the Gaussian Integers.
- **CALSim:** In-browser WireWorld cellular automaton interpreter with built in key-commands.

## PROGRAMMING SKILLS

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- **Languages:** JS, C++, Python, Bash, Java, PHP, LaTeX
- **Technologies:** jQuery, lodash, Node.js, Vim