

## EDUCATION

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- **Utah State University** Logan, UT  
*Computational Mathematics (BS); GPA: 3.88; Magna Cum Laude* *Aug 2015 – Dec 2018*
- **Cuesta College** San Luis Obispo, CA  
*Three semesters to transfer; GPA: 3.95* *Jan 2014 – May 2015*

## EXPERIENCE

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- **Brilliant Worldwide** San Francisco, CA  
*Senior Software Engineer* *Oct 2021 – Present*
  - **Web Platform and Infrastructure - Tech Lead:** Served as Tech Lead on an ambitious project to rewrite Brilliant's frontend codebase with React/GraphQL/NextJS.
  - **Interactives Experience Pod:** Developed and planned interactive features to enrich learner experience, including gamification of learning with Leagues.
  - **Authoring Team:** Collaborated on a versatile lesson editor that enables producers to create world-class interactive STEM lessons.
- **Atomic Jolt** Logan, UT  
*Software Engineer* *Jun 2018 – Oct 2021*
  - **Learnosity Connector:** Contributed to the Learnosity Connector project which enables teachers to author course content in Canvas via the popular Learnosity service.
  - **Socialize:** Developed new elements of Atomic Jolt's Socialize platform for polls and discussions between students.
  - **Waymaker:** Collaborated with Lumen Learning on the Waymaker project and developed educational workflow software.
  - **Atomic Insight:** Led the Insight project to replace Canvas Analytics with a novel LTI stack written in Go+React to deliver customized metrics into Canvas Courses
- **USU Power Electronics Laboratory** Logan, UT  
*Software Engineer / Research Assistant* *Jan 2016 – Jun 2018*
  - **Square One – Altium Library Management System:** Created a system using Node+Express for mass-submitting tickets for new parts to be added to our in-house Altium Database and verified by librarians.
  - **CAN Data Graphing Utility:** Created an application for generating and sharing graphs of terabytes of data accrued in the AMPED battery life extension project.
  - **Graphic Design:** Designed all the banners and window decals around our facilities in Logan, UT. Utilized a unified color palette for all the facets of our organization.
- **USU GAS Lab** Logan, UT  
*Volunteer Software Engineer* *Apr 2017 – Dec 2018*
  - **Cubium Software Project:** A volunteer of the Get-Away-Special small-satellite program at Utah State University. Developed open source subscription-based plug and play software for small satellite application as well as 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:** Took charge of automating the hardware of a Meade 10" telescope to more accurately detect the positions of binary star systems.

## ACHIEVEMENTS

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- **USU - Magna Cum Laude:** Graduated Magna Cum Laude in the Computational Mathematics program at USU
- **USU Hackathon (2016 – 2018):** Took first place three years in a row at the Utah State University intercollegiate hackathon
- **Cuesta College FBSA (2015):** Awarded the Frank Brown Science Award for outstanding academic achievement.

## PROJECTS

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- **8-Bit Spaghetti:** Designed and built 8-bit processor using TTL. Helped many students around the world build versions of the design.
- **Dream Cloak LED Display:** Designed and built a 15x30 24-bit wearable RGB LED display and a web app to control it wirelessly, all in five days.
- **Automata Research:** Developed novel approach to classifying all Life-Like Cellular Automata by a similarity metric.
- **Health Research:** Designed and built personal health analysis applications (ECG/Apple Health) for insight and knowledge into their own health.

## TECHNICAL SKILLS

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- **Languages:** TS/JS, CSS/Sass, Python, C++, Swift, Kotlin, Ruby, Julia, Go, SQL, Elm, Haskell, LISP, Bash, LaTeX
- **Technologies:** React, NextJS, GraphQL, Svelte, Node.js, Rails, Django, Numpy, Postgres, WebSocket
- **Operating Systems:** MacOS, Arch, Ubuntu/Debian, CentOS, Windows