Logan Halstrom

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EDUCATION

- **University of California, Davis**   **Davis, CA**
  Ph.D. Mechanical and Aerospace Engineering   *Sep 2013 – Sep 2020*

  – Thesis: Computational Fluid Dynamics Simulation and Validation of Parachute Pendulum Motion
  – Advisor: Dr. Stephen Robinson

  M.S. Mechanical and Aerospace Engineering   *2013-2016*

  – Real-time performance feedback for the manual control of spacecraft

    ▪ test

- **University of California, Santa Cruz**   **Santa Cruz, CA**
  B.S. Physics   *2008-2012*

  – High-energy astroparticle physics with the Fermi Gamma-ray Telescope

EXPERIENCE

- **NASA Ames Research Center**   NASA Ames Research Center, Moffett Field, CA
  NASA Pathways Intern   *August 2017 – Current*

  – Human factors and human performance within the Human Systems Integration Division
  – Teleoperator performance modeling
  – Development and design of Playbook scheduling tool
  – Software development with python, Unity, node, and C#

- **UC Davis Center for Human/Robotics/Vehicle Integration and Performance**   **Davis, CA**
  Graduate Student Researcher   *2013 – Current*

  – Development and validation of methods to assess task performance in real-time and provide immediate feedback to improve mission outcomes for spaceflight operations
  – Customized refresher and just-in-time training for long-duration spaceflight crews
  – Simulation development for the analysis of human performance and human-automation interaction
  – Multiple human subject research campaigns
  – Computer-vision techniques for autonomous spacecraft rendezvous and docking
  – Optimal control theory for spacecraft attitude pointing

- **San José State University Research Foundation**   NASA Ames Research Center, Moffett Field, CA
  Research Intern   *June – September 2016, June – August 2017*

  – Designed and built a prototype of a mobile procedure viewer with the goals of reducing execution time, training time, and procedure execution errors for astronauts on the International Space Station
  – Directed design interns on prototyping, usability testing, analysis and feasibility tasks
  – Mentored software development interns learning Arduino, node, and Unity to accomplish tasks
  – Integrated HoloLens augmented reality display and ESP8266 hardware through a MQTT broker
  – Software development with Unity, node, and C++

- **Foodfully, Inc.**   **Davis, CA**
  Lead Software Developer   *2015-2018*

  – Development of web, iOS, and Android mobile apps to reduce household food waste
  – Full-stack software development in Javascript, Meteor, MongoDB, and React

- **Teachers Curriculum Institute**   **Mountain View, CA**
  Software Developer   *2013-2015*

- – Development of interactive science curriculum, comprehensive educational suite, and online store
- – Software development in JavaScript, HTML5, and Ruby on Rails

- **Handstand Inc.**   **Mountain View, CA**
  Content Administrator   *2011 – 2012*

  - – Curated and published a library of over 2,000 creative commons and open source textbooks for free use (over 2 million views as of January 2017 (see https://archive.org/details/opensource_textbooks)
  - – Assisted with the design, creation, and quality assurance of both the mobile and web applications
  - – Selected science, technology, engineering, and mathematics (STEM) textbooks for use with Android education application
  - – Effectively managed small teams of 3-7 people to complete various start up projects

- **University of California, Santa Cruz**   **Santa Cruz, CA**
  Undergraduate Student Researcher   *2010 – 2012*

  - – Search for 'smoking gun' signatures of dark matter in the galactic center
  - – High energy gamma-ray timing analyses with the Fermi Gamma Ray Telescope

  Junior Specialist   *2009 – 2010, Balloon Campaigns 2011-13*

  - – Computer-aided testing and evaluation of hardware and software for use on both test and final BARREL (Balloon Array for RBSP Relativistic Electron Losses) balloon campaigns
  - – Monitored data acquisition and performance of balloons during multiple campaigns to determine the electron loss rate during RBSP relativistic electron events

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SKILLS

Core Languages: Python, Javascript
Additional Languages: C#, FORTRAN, C++, MATLAB, Simulink, LaTeX, jQuery, Ruby on Rails, HTML5, CSS3
Development Environments: Linux, macOS, Windows, Android, iOS

[CV created on 04-14-2020]