

# Charles D Burnell

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## Education

*Boise State University*

*2013-Present*

- Bachelor of Science (Double Major) in Mathematics, and Computer Science
- Expected Graduation May 2018 - Current GPA 3.497

## Technical Skills

- Computer languages (Experienced): Java, Python, Sage
- Computer languages (Familiar) : R, Maple, SQL, C/C++
- CAD Software (Familiar): SolidWorks, OnShape
- Machine shop (Familiar): CNC Mill, Manual Mill

## Relevant Experience

*Google Intern - Google Chrome Site Isolation Team*

*May 2017-August 2017*

- Improved the Google Chrome task manager to properly track network usage and process management.

*First Robotics Mentor - Team 5871 The Chickadees*

*Augues 2016-Present*

- Mentored Idaho's only all female first robotics team in computer science, holding seminars and train the team's computer science team.
- Supervised work in the machine shop, ensuring safe use of the equipment.

*International Ground Vehicle Competition Team*

*May 2016-May 2017, September 2017 - Present*

- Managed development as head computer science student for an autonomous sample collecting rover.
- Developed prototypes of vision, navigation, guidance, and control software using C++, Python, and OpenCV.

*Ambient Sensors - Software Engineer*

*May 2017-Present*

- Developed safety critical software for IoT prototypes.
- Debugged legacy code used on IoT platforms to finish projects and add features.

*Teacher's Assistant, Boise State University*

*August 2015-May 2016*

- Converted, documented, and maintained 29 cryptology programs from Maple to Sage.
- Taught classes of 20+ students on how to use the programs in Sage.
- Read, graded, and critiqued students' cryptographic programs.

*Boise State Microgravity Team*

*August 2015-May 2016*

- Helped design a float sample collection tool to be tested at NASA's Neutral Buoyancy Lab, April 2016, using SolidWorks.
- Spearheaded Quick Disconnect Mechanism and Sample Collection Box designs.
- Rapidly prototyped 6 different iterations of subsystems using 3d printers.

*Elliptic Curve Research-Independent Study*

*August 2015-May 2016*

- Discovered 11 integer sequences related to the Bachet elliptic curves over prime finite fields that are not in the Online Encyclopedia of Integer Sequences
- Presented "On Bachet's Equation" at the Boise Crypt Fall 2015 conference.

## Other Experience

*Hospital Corpsman US Navy*

*2007-2011*

*United States, Japan and Philippines*

- Treated patients, including over 200 wounded, in what became Walter Reed National Military Medical Center.
- Managed an inventory of over 10 million dollars of medical equipment.
- Taught Combat Life Saving/Tactical Combat Casualty Care to over.060 Marines and Corpsman.

*Guardian College*

*2012-2013*

- Certificate in Paramedic Science