

SARA BALLANTYNE

2831 W. Deerfield Ct.
Eagle, Idaho, 83616
208-901-2518
sara.ballantyne@students.olin.edu

EDUCATION

FRANKLIN W. OLIN COLLEGE OF ENGINEERING, NEEDHAM, MA

Candidate for Bachelor of Science in Mechanical Engineering in 2019; GPA available May 2016

- Recipient of 4-year, 50% Olin Merit Scholarship
- Coursework includes: Modeling and Simulation of the Physical World, Introduction to Sensors, Instrumentation and Measurement, Design Nature, The Digital Eye: Photography, Vision, and Visual Communication, Olin Introductory Experience

BOISE STATE UNIVERSITY, BOISE, ID

Idaho Science and Aerospace Scholar Program - Team Leader, Jan 2014 – Aug 2014

- Led the life support system team for the proposed design of a manned mission to Mars while specializing in the design of radiation shielding
- Selected for a week-long intensive program at the NASA Ames Research Center and Boise State University to design a manned mission to Mars

BISHOP KELLY HIGH SCHOOL, BOISE, ID

High School Diploma, May 2015

- Coursework includes: AP Chemistry, AP Physics 1, AP Calculus AB, Idaho Science and Aerospace Scholars
- Cumulative GPA: 4.13; Salutatorian

EXPERIENCE

COLLABORATORY AND O.V.A.L. TOUR GUIDE, Olin College of Engineering, *Fall 2015*

- Led tours of academic programs and the Olin campus for visiting university faculties, company representatives, and visiting students
- Hosted prospective students

DESIGN FOR AMERICA, Olin College of Engineering, *Fall 2015*

- Founding member of the Olin/Babson chapter of Design for America

DESIGN NATURE, Olin College of Engineering, *Fall 2015*

- Investigated bio-inspired design and the design stream
- Utilized Solidworks to create a hopping mechanism to meet specific design goals
- Designed and Fabricated remote-controlled sea otter toy with swimming mechanism

SENSORS, INSTRUMENTATION, AND MEASUREMENT, Olin College of Engineering, *Fall 2015*

- Investigated circuit principles mathematically and in lab, including designing circuits to accomplish specific objectives
- Gained experience in soldering circuits

MODELING AND SIMULATION, Olin College of Engineering, *Fall 2015*

- Developed models for real-world scenarios, including the pharmacokinetics of Desmopressin Acetate, the physics of a Hohmann Transfer, and the thermodynamics of the International Space Station
- Utilized mathematical models in MATLAB to study effects and predict responses

PONDEROSA AERO CLUB, BOISE, ID

Student Pilot, *Jul 2015 – present*

GIRL SCOUTS OF SILVER SAGE COUNCIL, BOISE, ID

Lifetime Member, *Jul 2002 – present*

GSSSC Board of Directors - Board Member, *Aug 2012 – Jul 2013*

- One of two girl scouts selected to join the adult board for a year-long term to represent girls in council-wide decisions and provide input for program development

GSSSC Teen Advisory Council - Co-President, *Aug 2012 – Jul 2013*

BISHOP KELLY HIGH SCHOOL, BOISE, ID

Challenger Mentor, *Aug 2013 – May 2014*

- Served as a year-long mentor to a small-group of freshman students for integration into the BK community academically and socially

SKILLS

Machine Shop: mill, drill press, band saws

Computer: Matlab, Solidworks, Microsoft Office