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EDUCATION

Corvallis, OR **Oregon State University** **Class of 2018**

- Major in Computer Science, B.S.; **Current GPA: 3.9.**
- **Undergraduate Level Coursework:** Data Structures; Algorithms; Linear Algebra; Discrete Math
- **Graduate Level Coursework:** Reinforcement Learning and AI; Machine Learning; Deep Learning

EMPLOYMENT

Research, Undergraduate **Oregon State University** **Fall 2015 - Present**

- Explored and developed continuous Deep Reinforcement Learning and Stochastic Control techniques for the control and motion planning of biped robots, specifically for Oregon State's ATRIAS and Cassie biped robot platforms.
- Includes a summer 2016 full-time machine learning focused REU internship co-advised by professors in the Robotics and CS departments.

Software Engineer, Intern **Autodesk** **Summer 2015**

- Led a sub-team of 3 other interns to expand capabilities of the robot simulator created in my 2014 internship.
- Refactored large codebase/program architecture to work with Bullet Physics and OpenGL instead of Unity. Migrated code from C# to C++.
- Led team to large improvements in GUI usability and physics accuracy as well as a significant addition of features.

Software Engineer, Intern **Autodesk** **Summer 2014**

- Developed preliminary Oculus Rift compatibility with Autodesk CAD products.
- Worked on a team with 7 other interns on developing a fully featured real-time CAD-to-simulation tool for FIRST Robotics Competition (FRC) robots (including code emulation).
- Used Inventor C# API to extract mesh and physics data, vHACD C++ API to perform convex hull decomposition, and Unity as a physics and graphics engine, all tied together a custom C#.NET GUI.

TECHNICAL EXPERIENCE

Personal Projects

- **955 OPR Calculator** (2015). An open source competitive analysis tool for FRC teams. Used worldwide by teams from Canada to Israel in the 2015 competition season. Made performance predictions using machine learning and mined data. Javascript, JQuery, HTML5
- **Buckets++** (2016). Quackcon 2016 submission. Uses machine learning (SGB + clustering) to predict accuracy of basketball shots in specific circumstances (court location, opponent, time left etc). Includes slick GUI. Scikit-learn, Pandas

ADDITIONAL EXPERIENCE AND AWARDS

- **Peer Mentor:** Selected on my experience, passion and interpersonal skills to be a peer mentor in a program that facilitates research opportunities for historically underrepresented/disadvantaged students in STEM fields
- **4th Place:** Placed 4th overall and awarded Best Athletic Enhancement prize at Quackcon 2016 MLH event for Buckets++.

Languages and Technologies

- C++; Python; Matlab; JavaScript; HTML5; C#
- scikit-learn; numpy; pandas; matplotlib

github, linkedin