

Derek Benham

derek.r.benham@gmail.com | To view relevant projects check out: drbenham.website

Education

Brigham Young University, Provo, Utah | Ph.D., Aug 2021 – Present

Computer Engineering student, working in Field Robotics Lab

Brigham Young University, Provo, Utah | Bachelor of Science, April 2021

Computer Engineering, Minor Computer Science; GPA 3.61

Relevant Coursework:

- Non-Linear Optimization
- Stochastic Processes
- Robot Localization (SLAM)
- Computer Vision
- Predictive Modeling
- Cuda / HPC programming
- Embedded programming
- Machine Learning
- Artificial Intelligence/ Multiagent Systems
- Computer Networking

Experience

August 2021 – Present

Doctoral Research Assistant | Joshua Mangelson, BYU | Provo UT

- Researching continuous time state estimation via Gaussian Process Regression on $SE(3)$
- Managing team of undergraduates developing low-cost autonomous underwater vehicle
- TA for *Intro to Robotic Autonomy* course teaching principles of self-driving cars and ROS

June 2020 – April 2021

Undergrad Research Assistant | Chris Archibald, BYU | Provo UT

- Research focused on AI Game Theory and Natural Language Processing
- Developing an adaptive AI to play the game *Codenames* using word embeddings

September 2017 – August 2021

Computing Specialist | Retail Tech Support, BYU | Provo UT

- Provide computer and point of sale support for BYU retail establishments
- Includes Hardware & Software troubleshooting and Customer Service

May 2018 – Aug 2018, May 2019 – Aug 2019

Software Engineering Intern | ANR Group Inc | Richland WA

Contracted to Mission Support Alliance, Information Management Department

- Placed on team that migrated over 1,000 SharePoint On-prem sites to Microsoft Online
- Co-authored custom training document for end users
- Automating report process in Excel VBA to view SharePoint site utilization
- Automated COTS billing software to streamline financial reporting

Other Skills and Abilities

- Developed a surface vessel for autonomous reef inspection, deployed in Hawaii, Nov 2021
- Retrofitted Boston Dynamic's Spot robot for deployment at sponsor company
- Computer repair and diagnostics. Amateur auto mechanic enthusiast

Awards & Acknowledgements

- IEEE/ OES Oceans Student Poster Competition, 3rd place
- Coached First Lego League Robotics team to Washington State regional competition
- Lead engineer, team of 4, placed 2nd nationally in High School Real World Design Challenge