Benjamin Jensen

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EDUCATION

Electrical Engineering (BS)   *Spring 2020*
Brigham Young University   *Provo, UT*
- 3.97 GPA, Awarded: Heritage Academic Scholarship
- Organizations: Eta Kappa Nu, Tau Beta Pi, Presidents Leadership Council Student Mentorship Program
  Capstone Project: Designing an unmanned aerial system to compete in the AUVSI SUAS competition.

SKILLS

C	C++	Matlab	Python	Flutter	Pytorch
OpenCV	Git	Tensorflow	Linux	LTSpice	Arabic

EXPERIENCE

Research Assistant   *Mar. 2018 - Present*
BYU Department of Electrical and Computer Engineering   *Provo, UT*
- Research physical-layer security coding and vehicle-to-vehicle communications
- Participate in Chip Camp, an outreach program that works with hundreds of middle and high school students to get them excited about STEM

Program Director   *Apr. 2018 - Present*
Utah Underwater Robotics   *Provo, UT*
- Coordinate one of the largest underwater robotics competitions in the state of Utah
- Organize a yearly competition for over 700 middle school students
- Communicate with more than a dozen teachers to keep the students on track

Waiter   *Apr. 2013 – Aug. 2014*
MBK Senior Living   *Cedar Hills, UT*
- Worked with a small team to ensure all residents were provided with food suitable to their dietary needs
- Aided residents unable to feed themselves

LEADERSHIP

Leadership Council Member   *Apr. 2018 - Present*
BYU Mechatronics Club   *Provo, UT*
- Helped restart the club after it had been inactive for a year
- Train students how to design, construct, and program small robotics projects
- Supervise 10-30 students in bi-weekly meetings

Full-Time Volunteer Representative   *June 2015 - June 2017*
The Church of Jesus Christ of Latter-Day Saints   *San Diego, CA*
- Set goals and made plans in regular leadership council meetings to aid overall productivity
- Planned and conducted training meetings for 6-16 fellow volunteers ages 18-25
- Communicated with local leadership in weekly and monthly meetings to report progress and reevaluate

Service Committee Chair   *Apr. 2013 – May 2014*
Cedar Hills Youth City Council   *Cedar Hills, UT*
- Organized activities for the city youth, including an Easter-egg hunt and a sub-for-Santa event
- Coordinated and participated in various fundraising activities

PUBLICATIONS

[1] M. Rice, B. Clark, D. Flanary, B. Jensen, N. Nelson, K. Norman, E. Perrins, W. K. Harrison, "Physical-Layer Security for Vehicle-to-Everything Networks," *IEEE Vehicular Technology Magazine*, submitted July 1, 2019 *(Under Review).*

[2] M. Rice, W. Harrison, B. Jensen, K. Norman, B. Wood, C. A. Gutiérrez, "V2V Propagation in Mountainous Terrain: Part I—Experimental Configuration and Measurement Results," *LatinCom 2019 IEEE Latin-American Conference on Communications (LatinCom)*, Salvador, Bahia, 2019.

[3] K. Norman, B. Jensen, M. Rice, W. K. Harrison, "Doppler Power Spectra From Vehicle-To-Everything Propagation Experiments," *ITC 2019 IEEE International Telemetering Conference (ITC),* Las Vegas, Nevada, 2019.

[4] D. Flanary, B. Jensen, B. Clark, K. Norman, N. Nelson, M. Rice, W. K. Harrison, "Manufacturing an Erasure Wiretap Channel from Channel Sounding Measurements," *ISIT 2019 IEEE International Symposium on Information Theory (ISIT),* Paris, France, 2019.

[5] B. Jensen, B. Clark, D. Flanary, K. Norman, M. Rice and W. K. Harrison, "Physical-Layer Security: Does it Work in a Real Environment?," *ICC 2019 - 2019 IEEE International Conference on Communications (ICC)*, Shanghai, China, 2019, pp. 1-7. *Presented the paper in Shanghai, China.*

PROJECTS

Remote-Control Car   *Sep. 2018 – Dec. 2018*
- Designed a board using autoCAD software
- Implemented code for the controller to be used over a smartphone app

Maze-Solving Robot   *Jan. 2019 – Apr. 2019*
- Used an Arduino and rangefinders to detect walls of a wooden maze
- Raced other robots to solve the maze in the shortest time

Laser Tag   *Jan. 2019 – Apr. 2019*
- Designed a fully functional laser tag system, comprising an analog receiver and filters implemented in C for the receiver
- Programmed an Arduino to act as a "home base" by emitting a specific frequency

Self-Driving Car   *Jan. 2019 – Apr. 2019*
- Worked in a small team to program an RC car to detect and follow lanes, avoid obstacles, and function in a miniature city alongside other autonomous vehicles using an Intel Realsense camera and OpenCV