RYAN BARTRUFF

Computer Science Graduating June 2019
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EDUCATION

University of Washington, Seattle, WA

- B.S. in Computer Science

Coursework:

- Data Structures and Algorithms
- Software Design and Implementation
- Hardware Software Interface
- Foundations of Computing I, II
- Robotics (Graduate Level)

Udacity - Introduction to Artificial Intelligence

Code Academy - Python

PROJECTS

PERSONAL ROBOT / OpenCV

- Used an open source library to apply edge detection, Hough transforms, and Haar Cascades to identify faces and shapes
- Controlled robot movements using coordinate transforms. Used value iteration to solve Markov Decision Processes

UW CAMPUS MAP

- Created a campus direction map from scratch using a graph implemented as an adjacency list and Dijkstra's algorithm to find the shortest path between 2 locations

HACKATHONS

- An iOS app that sends money to charity if you snooze an alarm using Venmo's API
- A web-based application that recommends an outfit based on weather conditions and style matching

SKILLS

- Java (Experienced), Python(Beginner), C/C++ (Beginner)
- SQL (Beginner) – Currently Learning
- Linux, Bash
- HTML / CSS
- Robotics

EXPERIENCE

Software Intern

FCP Insight – Construction Workflow Management Startup, Summer 2018

- Created a dashboard to calculate and visualize sales statistics and instant access to construction bids and sales.
- Improved the performance of the data access via custom caching and bottleneck elimination.
- Technologies used including Java, SQL, HTML, CSS.

Robotics Instructor

iDTech Stanford, Summer 2016 + 2017

- Created the curriculum to teach elementary school students how to build and program robots
- Managed and taught a class of 8 students

Tutor

UW Pipeline & Personal Tutor 2013 - 2018

- Over 500 hours tutoring Math and Science at low income high schools nearby

HONORS AND AWARDS

- University of Washington Dean's list
- HuskyInnovate 2017 – 1st Place
  Our team created an app to teach children how to garden and presented for a panel of 7 industry experts

ACTIVITIES

Team Captain and Web Master

Homestead High School Robotics Team, 2015

- Created a curriculum to teach new members robotics skills
- Managed mechanical, programming, and fabrication teams
- Led team to achieve the highest award in school history
- Designed and Built the team's webpage