Ryan R. Gysin

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EDUCATION

Apr 2017

Undergraduate Degree in Computer Engineering

University of Michigan (U of M), Ann Arbor

Relevant Classes: Operating Sytems, Machine Learning, Microprocessor Design, Embedded Control Systems, Computer Security, Logic Design, Computer Organization, Signals and

Systems, Data Structures and Algorithms

GPA: 3.0/4.0

PROJECTS

Apr 2017

MGoKart

Jan 2017

Created autonomous gokart as concept for autonomous formula car

Developed path planning algorithms and simple kalman filter in Python

Designed hardware and communication architectures

Wrote communications code in C and Python

Wired all components to gokart

Apr 2017

MICHIGAN AUTONOMOUS AERIAL VEHICLE (MAAV)

Sept 2015

President and Navigation Lead 2016-2017

Worked on quad-rotor that placed 2^{nd} in the 2016 International Aerial Robotics Competition

Developed computer vision code for detecting corners and ground robots based on size and color

Designed code that tuned computer vision software to reduce noise

Managed entire team code base using git

Dec 2014

MECHANICAL SYSTEM DESIGN

Sept 2013

Harnessed Rotational Momentum of bicycle to light a light bulb using chain linkages and magnetic induction

Prioritized money vs. performance as well as budgeted time

WORK EXPERIENCE

Current	Nexteer Automotive, Saginaw, MI
July 2017	Manufacturing IT Engineer
	Interned summer of 2016, went on to take internship as full time job
Aug 2016	Designed C# applications to interface with SQL databases
May 2016	Worked in Manufacturing IT to trace parts through machine processes
May 2017	U of M Parking and Transportation Services, Ann Arbor, MI
July 2014	Bus Driver
	Responsible for the transportation and well being of hundreds of students daily
	Learned to manage different personalities through communicating with passengers frustrated about delays

Aug 2014 | U of M Mechanical Engineering Department, Ann Arbor, MI

Sept 2013 | Research Assistant to Prof. Eric Johnson

Created GUI to model bubble cavitation in a viscoelastic media

Gained understanding of Matlab scripting and GUI's

$S \\ \text{KILLS}$

 $\label{eq:languages: C++, C, C\#, LATEX, Python, SQL, Verilog, Ruby, Mathematica} Languages: C++, C, C\#, LATEX, Python, SQL, Verilog, Ruby, Mathematica$

Tools: Git, Matlab, OpenCV