

Ryan R. Gysin

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EDUCATION

APR 2017 | Bachelor of Science in COMPUTER ENGINEERING
University of Michigan, Ann Arbor
Relevant Classes: Operating Systems, Machine Learning, Microprocessor Design, Embedded Control Systems, Computer Security, Logic Design, Computer Organization, Signals and Systems
GPA: 3.0/4.0

EXPERIENCE

Current | MICROSOFT, Redmond, WA
NOV 2018 | *Software Engineer*
Reduced build failures by 90% by isolating imaging jobs in Azure VMs
Updated job scheduler to support different worker node types

OCT 2018 | NEXTEER AUTOMOTIVE, Saginaw, MI
JULY 2017 | *Manufacturing IT Engineer*
Designed C# applications to act as interface between PLCs and SQL databases

AUG 2016 | Wrote LabVIEW VIs to decode JSON messages and transmit them through TCP sockets
MAY 2016 | Developed PLC routines to communicate with C# application and make decisions about whether or not a part meets specifications
Co-led C# development training session specializing in WPF and .NET frameworks
Maintained computers running on plant floor to reduce down time of plant lines

PROJECTS

APR 2017 | MICHIGAN AUTONOMOUS AERIAL VEHICLE (MAAV)
SEPT 2015 | *President and Navigation Lead 2016-2017*
Led team of 40 to place 2nd in the 2016 International Aerial Robotics Competition (IARC)
Developed computer vision code for detecting corners and ground robots based on size and color
Designed and tested code that tuned computer vision software to reduce noise in images
Organized team structure and led weekly meetings to ensure all sub-teams were on track
Acquired corporate sponsorship totaling \$40k and managed annual budget
Managed and reviewed entire team code base using git

APR 2017 | MGOKART
JAN 2017 | Created autonomous gokart as concept for autonomous formula car
Developed path planning algorithms and simple kalman filter in Python to steer the kart and filter out erroneous data from sensor suite, including a lidar and encoders
Designed and built hardware architecture to allow power distribution and communication between central microprocessor, motors, and sensors
Wrote code in C, Python, and Arduino to allow communication between the software algorithms, controls algorithms, and motors
Reduced electromagnetic interference in wires across the kart by approximately 80%
Simulated sensor inputs to system and validated outputs using vehicle dynamics model

ADDITIONAL

Languages: C++, C, C#, Python, T-SQL, L^AT_EX, Verilog, Ruby
Tools: Git, Matlab, LabVIEW
Assisted in research resulting in childrens book about cavitation bubbles
Drove U of M blue buses for 3 years while in college