# Ryan R. Gysin

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### **EDUCATION**

APR 2017 | Bachelor of Science in Computer Engineering University of Michigan, Ann Arbor

#### EXPERIENCE

Current	THE BOEING COMPANY, Tukwila, WA
July 2023	Real Time Software Engineer
	Updated track fusion software to latest Open Mission Systems standard
	Implemented communication protocol with track identification application
May 2023	MICROSOFT, Redmond, WA
Nov 2018	Software Engineer II
	Designed WinRT API for Microsoft reverse debugger
	Updated Application Verifier to allow it to run on ARM64 processors
	Reduced build failures by $90\%$ by isolating imaging jobs in Azure VMs
Ост 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# app and validate part specifications
	Co-led C $\#$ development training session specializing in WPF and .NET frameworks

# PROJECTS

Apr $2017$	MICHIGAN AUTONOMOUS AERIAL VEHICLE (MAAV)
Sept 2015	President and Navigation Lead 2016-2017
	Led team of 40 to place 2 <sup>nd</sup> in the 2016 International Aerial Robotics Competition
	Developed computer vision code for detecting grid and ground robots
Apr 2017	MGoKart
Jan 2017	Created autonomous gokart as concept for autonomous formula car
	Developed path planning and data filtering algorithms to steer the kart
	Designed and built hardware architecture to allow power distribution and communication
	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

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