

Alex Norris

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Education

Bachelor of Science in Computer Science

Graduated: December 2021

University of Missouri-Kansas City

- GPA: 3.57

Projects:

Commerce Bank Web Application (Senior Capstone)

- Used the Razor Pages in ASP.NET Core framework to build front-end.
- Microsoft SQL Server 2012 for database management.
- Hosted using Microsoft Azure.

Drone Simulation Library / Unity Game Engine Simulation Visualization

- Designed and developed a .NET Standard C# library with the purpose of assisting in running simulations involving drone flight for my undergrad research assistantship. This Library was used to develop simulations which could optionally be run in Unity for visualization.

Autonomous Drone Swarm

- Developed flight decision algorithms to run on drone companion computers using the DroneKit-Python library.
- Designed an IoT network using the XBee Python API to broadcast commands by RF modules.

Autonomous Parachute Guidance Unit

- Reprogrammed an existing Joint Precision Airdrop System (JPADS) based modular autonomous guidance unit (MAGU) to research different control methods.
- Developed control algorithms in C.

Involvement

Undergraduate Research Assistant

March 2021-Present

University of Missouri – Kansas City / Missouri Institute of Defense and Energy

- Work with a team of diverse knowledge backgrounds to create complex software solutions for issues revolving around aerial vehicles.
- Build simulations in C# with option to interface with Unity for visualization.
- Develop automated decision-making for aerial vehicles.
- Analyze data logs produced from flights and simulations.

Founding Public Outreach Officer

May 2021-Present

UMKC Association for Computing Machinery Chapter/Computer Science Club

- Reach out and recruit new members and encourage an environment for computer science students to connect and work on projects together.
- Help plan and organize meetings with fellow board members.