Kate McManus

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**Co-op and Work Experience**

* Software Engineer, Naval Medical Research Unit – Dayton, WPAFB, Ohio. (2020 - Current)
  + Wrote software to display prompts to and gather data from test subjects
  + Created an application to send eye-tracking data from one program to another for data collection
  + Developed a flight simulation plugin to display aircraft pitch in virtual reality
  + Developed a flight simulation plugin to track subjects’ motion sickness
  + Integrated motion capture technology with virtual reality to allow VR head tracking capability in a moving environment
* Programming Assistant, Cincinnati Children’s Hospital Medical Center, Cincinnati, Ohio (2019)
  + Troubleshooting and modification of code that processed microscope images and identified certain cell clusters
  + Updated image processing software UI to be more user-friendly

**Skills**

* Programming: C++, C#, Python
* Operating Systems: Windows, Linux
* Game Engines: Unity, Unreal Engine 4
* Graphics Software & Image Processing: OpenVR, OpenGL, OpenCV
* UI Design: Windows Forms, Qt Creator
* Geographic Information Systems (GIS)

**Type of Project Sought**

* Motion tracking and data collection using virtual reality
* Project involving video or image processing to gather information
* Design and implementation of a user interface
* Open to other possibilities