CSC593 Introductory Presentation

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Current Field of Study - Ocean Engineering

Sonar

- Work on torpedo defense for surface ships
- Need to develop algorithms for detection of torpedoes
- Need to develop analysis tools for visualizing performance of algorithms

Robotics

- Used in naval applications for mine detection, surveillance, etc.
- Used in civilian sector for monitoring health of offshore structures and other underwater exploration projects

Why did I take this course?

Applications to current job

- Data analysis tools developed by others that I need to use/maintain
- Large amounts of data that need to be processed efficiently

Applications to grad school future

- I am working to obtain an M.S. in Ocean Engineering with a focus in robotics
- Refining my Python/C skills will help tremendously when developing software for robotics

Open Source Software

- Cuts in funding have caused us to look for alternatives to programs with expensive licenses (i.e. Matlab)
- Python has become widely used for developing analysis tools
- Unfortunately it can be very difficult to use code written by others in a government agency (unless written by another government agency)
- Still, Python offers us the same power that Matlab does at no cost (except learning cost)