

THE VALUE OF PERFORMANCE.
NORTHROP GRUMMAN

COSC 380 Internship Presentation

**Northrop Grumman Mission
Systems**

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Company Background

- Northrop Grumman
 - US Global Aerospace and Defense company
 - Over 85,000 employees
 - Ranked 124th of the Fortune 500 companies
- Products



B-2 Spirit



MQ-4C Triton



Antares Rocket – Wallops Island

- **PGMPS – Precision Guided Munitions Planning Software**
 - Component of JMPS (Joint Mission Planning System)
 - Created for the US Navy and Air Force
 - Personal Computer software to aid in the planning of mission for various different weapons
- **CIDS – Continuous Integrated & Delivery Solution**
 - Used to run tests on the front end of PGMPS
 - Automatically deploy solution to test computers



- PGMPS
 - Wrote interfaces and classes that allowed me to interact with the back end of the software
 - Any bug fixes that were related to the backend of the software

- CIDS
 - Used Test Complete to develop “Smoke Tests”
 - Created a build process to be able to run tests on test computers
 - Using Team Foundation Server

- Becoming familiar with a large code base
- Learning how source control works with TFS
 - Including tasking
- Learning Test Complete

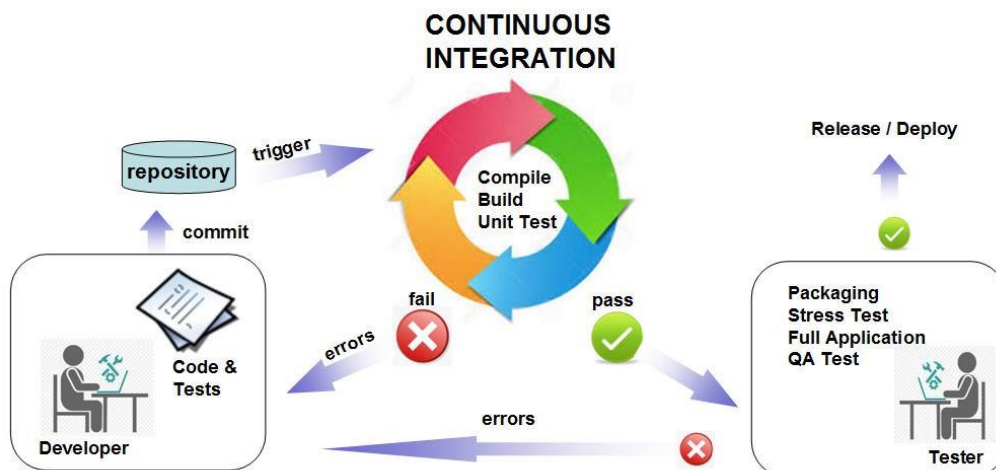


- Data Structures
- Learning multiple languages
- OOP Concepts
 - Classes, Inheritance, Polymorphism, Interfaces, etc.
- Meeting strict deadlines



What I Learned

- Agile Development
- Using TFS for Tasking, Source Control, etc.
- TestComplete for Automated Testing
- Working on projects with a large code base
- Debugging in Visual Studios



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