Christopher C. Pillow

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Education Virginia Polytechnic Institute and State University
Bachelor of Science in Mechanical Engineering, 2015
National Science Foundation SciTE Scholarship Recipient
United States Navy
Nuclear Power Training Unit - Ballston Spa, 2005
Nuclear Power School, 2005
Nuclear Field "A" School, Machinist Mate, 2004

Skills

CAD (Inventor, Solidworks, Catia V5)	Matlab, Simulink
Computer-aided manufacturing (Solidcam, NX Cam)	Machining (e.g., mills, lathes, plasma cutters)
Computational fluid dynamics (ANSYS)	Excel (e.g., macros, heat maps, pivot tables)
Data acquisition (NI myDAQ, Somat InField)	Mathematica
Extensive experience with P&ID and GD&T	LabVIEW
CMM (Faro)	FEA (Inventor, Solidworks, Strand7)

Professional, Engineering, and Leadership Experience

Fontaine Modification June 2015-Present
Engineer, Production Supervisor

- Designed parts for heavy truck transmissions, battery systems, suspension, steering, and chassis resulting in more than 20 final production components that are installed in hundreds of trucks across dozens of fleets
- Verified specification conformance on new production parts received from vendors and coordinated a nonconformance tracking system to resolve issues
- Developed and executed post-assembly test plans for CNG, electrical, and electronic systems. Errors caught during these tests and informed process improvements and procedural changes
- Designed and constructed test equipment to test mechanical joints on CNG system, and wrote the valve manipulation and test procedure
- With an emphasis on continuous improvement, maintained and upgraded facility equipment and production line organization
- Met all deadlines while responsible for engineering tasks such as new product development, product revision maintenance, coordinating new product hand-off from R&D to production, work instruction creation, and managing non-conformance parts/components
- Implemented a record keeping system tying each vehicle, by VIN, to test results including mechanical and electrical test, QA, weld MPI, and wheel alignment results

Virginia Tech Baja SAE 2014-2015

Team Captain

- Led a team of 20 in designing, building, and racing a single-seat off road vehicle in a global SAE sanctioned event, requiring detailed knowledge of automotive engineering and land vehicle dynamics
- Pioneered the use of advanced testing methods and data acquisition techniques at Virginia Tech. Our testing made use of strain gauges, accelerometers, optical sensors, hall effect sensors, GPS, string potentiometers, and torque sensors to acquire real world data
- Designed and fabricated an application specific CVT (continuously variable transmission), allowing for increased speed and performance

NSF SciTE Scholarship 2011-2012

Team Leader

- Led a ten person team in designing a fully functional inductive loop parking lot monitoring system capable of reporting data over the internet
- This system was developed to avoid parking lot congestion by providing drivers with lot capacity information and parking space availability

USS Hartford SSN-768 Nuclear Attack Submarine 2004-2010

Quality Assurance Supervisor

- Provided final inspection certification to critical repair components—failure of such components could result in the loss of the ship
- In-depth experience with the SUBSAFE system NASA adopted after the Space Shuttle Columbia disaster
- Authored, executed, and supervised nearly 100 controlled work packages requiring the utmost accountability and superior craftsmanship
- Performed more than 500 preventative and corrective maintenance actions, none of which required subsequent rework

Engine Room Supervisor

- Qualified in Submarines - Excelled in a rapid paced study of submarine design, construction, operating procedures, and casualty response such as flooding and fire fighting
- System expert on all propulsion and auxiliary systems including primary and secondary nuclear systems, propulsion equipment, hydraulics, freshwater production, refrigeration, and life support
- Trained and assisted officers and junior personnel in their qualifications for both reactor and ship's systems

Ship's Diving Supervisor

- Under my leadership, Dive Division was the only division evaluated to be at 100% deployable readiness
- Logged more than 100 supervised dives with 100% mission completion and with no accidents or injuries