Andrei Petcu
Project Engineer (US Citizen)

Mechanical engineer offering extensive project management experience with controls background.

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WORK EXPERIENCE

Project Engineer
PULSCO Inc.

06/2015 – Present
Solutions for fluid pulsation, noise and water hammer.
Achievements/Tasks

- Worked with customers to properly size and provide acoustic dampeners. Quoted, designed, and delivered dampeners that would meet customer requirements. 🔗
- Analyzed customer's pipelines to provide and design surge/pressure control systems. The systems included an ASME designed pressure vessel with control logic that monitored pressures and water levels. Delivered complete systems with on-site startup and training services. 🔗
- Creating new PCB based embedded control system similar to NEST or ECOBEE but for monitoring and controlling pressure and level within large water tanks. Designing, developing and programming new control system and on course for releasing new product in 2020.
- Implemented Solidworks PDM system. Designed workflows, custom API scripts, and wrote standard operating procedures on how to release and revise documents within a PDM system.
- Created MS Access database for tracking quotes, project status, purchase orders, KPIs and financial health of company.
- Created a program that logs 4-20mA analog signal and plots the data in real time. The program is being sold as a pressure tracking and monitoring device for pipelines that may have problems with high pressures. 🔗

Design Engineer
Solar Turbines

08/2014 – 05/2015
Gas Turbine Engines
Achievements/Tasks

- General Solar Turbines product exposure through the creation of skid drawings, shop floor drawings and mechanical interface drawings for customers.

Project Engineer
Fluidmaster Inc.

06/2012 – 08/2014
Toilet fill and flush valves
Achievements/Tasks

- Redesigned components to meet customer and quality satisfaction.
- Helped reduce production cost of highest selling product without decreasing the quality.
- In charge of new tooling qualification system that scans molded parts and then compares the parts directly to the CAD model. This new system will drastically decrease inspection time and the quality of information obtained during inspection will also be improved.

SKILLS

Project Management · Pro E/ Creo · Windchill · Solidworks · Solidworks PDM · Mat-Lab · C++ · Python · PLC · Fortran · MS Office · MS Access · Ladder Logic · KY Pipe · Controls · Drones · Injection Molding · PCB Design

PERSONAL PROJECTS

Design, Build and Fly Quadcopter (01/2017 – 06/2017)
- Drone was designed and built using a 32- bit flight controller, 2.4 Ghz PPM remote control, 5.8 Ghz video tx/rx, 2 axis gimbal for stabilized video, 1080p camera, heads up display that displays telemetry, altitude, direction and battery life. Successfully flew drone with an estimated battery life of 15 minutes. Drone can hold altitude, position and angle using onboard controls.

Co-Author of "Island of Stability" (01/2014 – 01/2015)
- Co-wrote a 500 page science fiction novel and self published on Amazon.

EDUCATION

Masters of Science in Aerospace Engineering University of California Irvine
01/2013 – 03/2014   GPA 3.3

Bachelor of Science in Aerospace and Mechanical Engineering
University of California Irvine
06/2009 – 06/2012   GPA 3.4

LANGUAGES

English
Native or Bilingual Proficiency

Romanian
Native or Bilingual Proficiency

INTERESTS

Building and Flying Drones · Science Fiction Books · Open Source Software · Programming