Kyle Stanevich

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SUMMARY

Aerospace Engineer with experience in R&D and systems engineering. Versed in missile design, GNC, radar, image analysis, lab and field testing, and spacecraft electric propulsion. Willing travel and relocate.

EXPERIENCE

Aerospace Engineer, *General Atomics* **2018-present**

- Developed a stereo vision 3D tracking system using high speed cameras. The goal was to track the shrapnel pellets coming from the railgun projectile during dispense.
- Flew UAVs with RTK GPS and tracked their flights with radar. I post-processed and analyzed both the GPS and radar data. The GPS was used as a truth source to calibrate and test the radar against.
- Analyzed images taken from inside the railgun bore to check for wear and depositions. Using the images, I recreated a 3D surface map from each scan and could visualize wear patterned between scans.
- Created a thermal management system sizing model for a high powered laser system. I also ran flow analysis on different configurations of the thermal energy storage tank, an element within the thermal management system.
- Correlation, frequency, and filtering analysis of telemetry module acceleration data taken from within the railgun.
- Formulated and compared different missile roll control methods including proximate time optimal control, sliding mode control, and PID control.
- Misc: Matlab expo conference, Radar conference, IR cameras

Researcher and TA, *University of Illinois* **2015-2018**

- TA for the electric propulsion and plasma physics class. Topics covered:
  - Plasma physics, Hall thruster, ion thruster, resistojet, arcjet, pulsed plasma thruster, magneto plasma dynamic
- Research assistant in the electric propulsion lab. Worked on:
  - Fusor, Helicon, RF power, vacuum chamber, laser interferometry, plasma
  - arc.aiaa.org/doi/abs/10.2514/6.2017-4629
- Research assistant in the fusion lab. Worked on:
  - Tokamak, plasma deposition, circuits, plasma, vacuum, slow motion imaging
  - nucleus.iaea.org/sites/fusionportal/Shared%20Documents/FEC%202016/fec2016-preprints/preprint0582.pdf

Structural Engineer and Team Lead, Manned Mars Mission, *University of Illinois* **2016-2017**

- Systems engineering, spacecraft structures, AIAA design competition, trade studies

Engineer and Business Associate, *Empod* **2013-2017**

- CAD, IMDS, 3D printing, Manufacturing, Windchill

Design Engineering Intern, *Autosplice* **Summer 2014**

- Metallurgy, CAD, electrical testing, cross sectioning, heat testing, IQMS

EDUCATION

University of Illinois at Urbana-Champaign **GPA: 4.00** **August 2018**
Master of Science, Aerospace Engineering
Electric propulsion, combustion, distributed and satellite control systems

University of Illinois at Urbana-Champaign **GPA: 3.97** **May 2017**
Bachelor of Science, Aerospace Engineering
Control systems, CFD, electric propulsion, systems engineering, UAVs, thermodynamics

SKILLS & LANGUAGES

- **MATLAB:** Image processing/analysis, Stereo vision, Simulink, Control systems, System sizing
- **Software:** SolidWorks, Fluent, NX, Excel, Mathematica, Comsol, Abaqus
- **Programming:** Python, C++, Fortran, Java, HTML, Javascript, SQL
- **Other:** Linux, Windows, Git, Photoshop, Premier Pro

ACTIVITIES

- **Boy Scouts:** Eagle Scout, Order of the Arrow, National Youth Leadership Training
- **SAE:** Baja chassis designer
- **TechNews:** Writer and business manager for the student newspaper