Gregory Lemieux, Computational Engineer

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GitHub

SUMMARY

Astronautics professional with a broad technical backround working towards Computational Engineering degree. Excellent communicator within commercial, manufacturing and research environments; Proven ability to adapt to changing responsibilities based on evolving project requirements with a diverse skill set developed through participation in multiple stages of spacecraft design, development, and operations.

EXPERIENCE

SSL - Systems Engineering Specialist   2012-04 — Present
http://sslmda.com

- Developing next-generation orbit simulation code for controls design and analysis.
- Responsible for the next-generation on-board flight software orbit estimation filter.
- Founding member of the Guidance, Navigation and Control Software Development Working Group.
- Produced mission analysis tools for the NASA Restore-L to help guide hardware subsystems decision-making.

Space Science Laboratory - Research and Development Engineer   2008-06 — 2012-04
http://www.ssl.berkeley.edu/

- Developed science data accumulation forecasting tool to aid in planning mission critical science collection.
- Integrated DSN Service Scheduling Software into active mission operation scheduling process.
- Scheduled ARTEMIS mission supports including critical Lunar Orbit Insertion.
- Contributed to the Deep Space Network Scheduling Advisory and Mid-range Management Groups.

Janos Technology - Opto-mechanical Engineer   2003-12 — 2006-05
http://www.janostech.com/

- Designed infrared lens assemblies for commercial, defense, and research applications.
- Represented the engineering department as a member of the company-wide Quality Control Committee seeking AS9100 compliance.

Center for Space Physics - Mechanical Engineer   2001-09 — 2003-06
https://www.bu.edu/csp/

- Designed and developed the vacuum-sealed opto-mechanical assembly for the main science payload for the SPIDR NASA mission proposal.

PUBLICATIONS

SSL Commercial Geosynchronous Spacecraft Orbit Raising Considerations   2016
http://www.univelt.com/book=5817

- Survey findings from all SSL launches since the 1990s.

THEMIS Mission Networks Expansion   2010
https://arc.aiaa.org/doi/10.2514/6.2010-1934

- Discussion of the integration of the Deep Space Network software and processes for the ARTEMIS mission extension.

AWARDS

Asterism Award, SSL   2015

- Peer-to-peer recognition for developing and delivering introductory training material for new orbit dynamics group employees.

Apogee Award, SSL   2013

- Received for contributions to a 2013 NASA Institute for Advanced Concepts (NIAC) proposal for a deep space communications architecture concept.

ARTEMIS Project Recognition, Space Sciences Laboratory   2010

- For contributions to the Lissajous and Lunar Orbit Phases.

VOLUNTEERING
UUCB - Social Media Team   2018-07 — Present
https://uucb.org

- Administrative member of the church Social Media Team. Responsible for training, technical support, and analytics reporting to the church Program Council.

UUCB - Safety Implimentation Team   2017-09 — Present
http://uucb.org

- Responsible for educating all church program groups on the Safety Plan requirements.
- Trained Family Ministry and Religious Education Volunteers on Emergency Evacuation procedures.

EDUCATION
Purdue University   2016-09 — Present
M.Sc. - Interdiscplinary Engineering, GPA: 3.2

Stanford University   2015-06 — 2015-08
- Introduction to Linear Dynamical Systems (EE263)

Santa Clara University   2014-09 — 2015-05
- Linear Algebra I (AMTH 245), Linear Algebra II (AMTH 246)

Boston University   1997-09 — 2002-05
B.Sc. - Aerospace Engineering, GPA: 2.98

SKILLS
Scientific Programming: Matlab/Simulink, Julia, Python, C, Fortran

Source Control: Git, SVN

Operating Systems: Linux, macOS, Windows