Gregory Lemieux, Computational Engineer

CONTACT
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GitHub: glemieux

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.

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

Source Control: Git, SVN

EDUCATION
Purdue University   2017-01 — Present
, GPA: 3.2

Boston University   1997-09 — 2002-05
, GPA:

EXPERIENCE
Systems Engineering Specialist   2012-04 — Present
SSL

- Dynamics and Controls Engineering, Mission Analysis and Design
- Developing next-generation orbit simulation code for future SSL mission validation and rehearsals.
- Responsible for the next-generation on-board flight software orbit estimation filter.
- Founding member of the Guidance, Navigation and Control Software Development Working Group.
- Built Julia and Jupyter-based mission analysis tools for future SSL missions.
- Mission analysis for the Restore-L program.

Research and Development Engineer   2008-06 — 2012-04
Space Science Laboratory

- Flight Engineer and Mission Scheduler for the THEMIS mission and ARTEMIS extension.
- 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.

Opto-mechanical Engineer   2003-12 — 2006-05
Janos Technology

- 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.

Mechanical Engineer   2001-09 — 2003-06
Center for Space Physics

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

PUBLICATIONS
SSL Commercial Geosynchronous Spacecraft Orbit Raising Considerations, Univelt
- Survey findings from all SSL launches since the 1990s.   2016

THEMIS Mission Networks Expansion – Adding the Deep Space Network for the ARTEMIS Lunar Mission Phase, Space Ops Conferences   2010
- 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 Extension, NASA   2008

- For work on lunar ARTEMIS extension.

VOLUNTEERING

Unitarian Universalist Church of Berkeley - Social Media Team Member

- Administrative member of the church Social Media Team. 2018-07 — Present Responsible for training, technical support, and analytics reporting to the church Program Council.

Unitarian Universalist Church of Berkeley - Safety Implimentation Team Member

- The Safety Implimenation Team is responsible for educating all 2017-09 — Present church groups on the Safety Plan requirements.
- Trained Family Ministry and Religious Education Volunteers on Emergency Evacuation procedures.