# Gregory Lemieux, Computational Engineer

CONTACT
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SUMMARY
I'm an engineer with a passion for developing scientfic software applications to help solve some of the most pressing problems our world faces. My particular interest lies in applied optimization problems and towards this end I am pursuing a graduate degree, part-time, with a focus on Computational Engineering. I have a broad technical background developed through work in both academic and industrial organizations, providing both research-oriented and commericially-focused products and services. As such, I am extremely comfortable communicating within a variety of environments and have a proven ability to adapt to changing responsibilities based on evolving project requirements.

SKILLS
**Scientific Programming:** Matlab/Simulink, Julia, NumPy

**Source Control:** Git, Subversion

**Documentation:** Markdown, TeX, Pandoc

**Productivity:** VScode, Jupyter, Vim

**Operating Systems:** Linux, macOS, Windows

EXPERIENCE
**Systems Engineering Specialist** 2012-04 — Present
*SSL*

- Developing next-generation orbit simulation code for controls design and Vehicle Hardware Lab usage.
- Responsible for the next-generation on-board flight software orbit estimation Kalman filter.
- Implementing Matlab/Simulink autocode generation to help streamline flight software build efforts
- TEA code discussion
- Package management code build discussion
- Founding member of the Guidance, Navigation and Control Software Development Working Group.
- Provide more details about the above. Talk about standard recommendation.
- Produced mission analysis tools for the NASA Restore-L to help guide hardware subsystems decision-making.
- Detail this a bit more to focus on how this compares to old tools
- Also flesh out star tracker location/orientation optimization against mission requirements
- Figure out what to talk about with regard to Mission Planner and OD role

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

- Developed science data accumulation forecasting tool to aid in real-time planning for 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 to prepare for deployment of next-generation scheduling process.

**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 mission proposal.