

Peter Gadomski

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Pete Gadomski has worked as a geospatial software engineer, business unit director, and engineering manager in the public and private sectors. He is passionate about writing useful libraries and tools, and he gets joy out of helping teams execute efficiently and excellently.

WORK

March 2021 - June 2024

Director (Aerospace), Senior Geospatial Software Engineer, and Senior Technical Manager at Element 84, Alexandria, VA (remote)

- Served as Business Unit Director for the Aerospace Business Unit, responsible for execution of \$4 million in yearly revenue with twelve engineers and project managers. Led multi-million dollar proposal development, contributed to company level risk assessments and business development strategy, and led outreach efforts at conferences and in other public forums.
- Previous to the director role, served as technical lead for the *Microsoft AI for Earth, Planetary Computer* contract. Led software development, served as interim project manager, defined engineering processes in an agile program structure, developed follow-on contract language, and provided subject matter expertise on geospatial datasets before their incorporation into the Planetary Computer.
- Previous to the director role, provided organization-level guidance and leadership as the Senior Technical Manager for Geospatial Engineering for two years. Managed several engineers, advised the Director of Engineering on system improvements and company-wide initiatives, provided individual-level input on staffing decisions, and liaised with the Lead Geospatial Engineer to align business development priorities with the company's technical capabilities.

August 2020 - March 2021

Lidar Measurement and Algorithm Specialist at the National Snow and Ice Data Center, Boulder, CO

- Wrote a new Rust library to implement Total Propagated Uncertainty (TPU) for airborne lidar data in support of a NASA research grant, and integrated small puck lidar with low-power computer for use on UAS (unmanned aerial system) lidar surveys.

September 2019 - June 2020

Senior Test Engineer at Ball Aerospace, Westminster, CO

- Planned and executed tests of RF systems, including measuring and validating RF performance, environmental stress screening, and system calibration. Systems included standalone space-program antennas and large multi-component phased arrays. Test execution required adherence to strict requirements and procedures, including direct observation by Quality Control and, when necessary, documentation and reporting of test anomalies.
- Led improvement of the team's Ruby test scripts and software environment, including bringing in modern version control (git) and implementation of coding styles and standards.

September 2016 - August 2019

Research Physical Scientist at USACE-CRREL, Hanover, NH (remote)

- Planned and executed lidar data collection and processing missions using a variety of platforms, including helicopters, fixed-wing aircraft, and unmanned aerial systems (UAS).
- Designed, created, installed, and repaired the software system for control and telemetry of remote terrestrial lidar sensors in southeast Greenland. This software system required programming in Python and BASIC while integrating with changing hardware design and interfaces.
- Created a change detection system for calculating glacier surface velocities from terrestrial lidar data, and presented these findings at multiple American Geophysical Union fall meetings and other conferences. Reimplemented change detection algorithms in C++ as an [open-source project](#).
- Co-built and co-taught a week-long class on lidar fundamentals for the Corps of Engineers.

December 2010 - September 2016

Physical Scientist at Science and Technology Corporation, Hampton, VA (remote)

- Used Python, Django, RabbitMQ, and more to build GRiD, a geospatial data repository for point cloud data that is now a program of record for the Army.

June 2010 - November 2010

Counselor and Ranch Staff at Bar 717 Ranch, Hyampom, CA

April 2009 - May 2010

Physical Scientist at USACE-CRREL, Hanover, NH

EDUCATION

January 2015 - September 2016

Master of Science at University of Houston, Geosensing Systems Engineering and Sciences

- Thesis: *Measuring Glacier Surface Velocities with LiDAR: A Comparison of Three-dimensional Change Detection Methods*

September 2004 - June 2009

Bachelor of Arts at Dartmouth College, Engineering and Earth Sciences

ADDITIONAL BACKGROUND

- Proficient in Python, Rust, C, C++, Matlab, Ruby, R, and more
- Experience with field operation in cold, remote, and hostile environments
- Completed the Corps of Engineers Engineering Research and Development Center's Leadership Development Program I, a professional development program
- Active maintainer of open-source repositories including several in the [STAC software ecosystem](#)