

David Nilosek

david.nilosek@gmail.com | 207.337.3307

EDUCATION

ROCHESTER INSTITUTE OF TECHNOLOGY

PHD IN IMAGING SCIENCE

Dissertation: Spectrally Accurate Simulation of Urban Structures Generated from Aerial Imagery

March 2014 | Rochester, NY
College of Science
GPA: 3.80 / 4.0

ROCHESTER INSTITUTE OF TECHNOLOGY

BS IN IMAGING SCIENCE

November 2008 | Rochester, NY
College of Science
GPA: 3.56 / 4.0

SKILLS

PROGRAMMING

C++17 • Go 1.12+ • Python 2/3 • Javascript (ES6, React.js) • Bash • HTML/CSS

DEVELOPMENT TOOLS

AWS • Docker • Kubernetes • CMake • Jenkins • TravisCI • Git / Github • Vim

MANAGEMENT TOOLS

JIRA • Confluence • Modern Agile SDLC methodologies (Scrum, Kanban)

SUBJECT EXPERTISE

Computer Vision • Remote Sensing • Signal Processing • Geospatial Information Systems/Mapping • Photogrammetry • Three-Dimensional reconstruction

LINKS

Github:// [dnilosek](#)
LinkedIn:// [david-nilosek](#)

ABOUT ME

I am a research oriented software engineer with a deep expertise in the field of remote sensing and computer vision. I have a passion for developing novel technologies and building them from the ground up into actionable and usable product. I enjoy facing challenges where I need to learn a new process or technology to help quickly get a job done. I often find myself filling in for whatever needs to get done, either on the research or development side, for my team to ensure we meet our goals.

EXPERIENCE

EAGLEVIEW TECHNOLOGIES | SENIOR DIRECTOR OF IMAGE PROCESSING

Dec 2018 - Present | Seattle, WA

- Designed and helped develop our next generation image processing, mapping, and geospatial data storage systems built on AWS-based solutions using go, python, and modern C++
- Modeled and managed cloud costs of our image processing systems in AWS
- Built supporting backend and frontend services using go and React.js for various systems within the image processing domain

EAGLEVIEW TECHNOLOGIES | SOFTWARE ENGINEERING MANAGER

October 2016 - Dec 2018 | Seattle, WA

- Developed framework for multi-view stereo processing using modern approaches (cost-aggregation, semi-global matching)
- Helped design and develop a large-scale data processing system for processing millions of images a day using AWS services using modern C++
- Implemented a framework for rapid R&D using EVT imagery

EAGLEVIEW TECHNOLOGIES | RESEARCH SCIENTIST

Sept 2012 - October 2016 | Rochester, NY

- Helped to establish and lead the research efforts within the Property Drone Consortium, a nonprofit collaboration between insurance and technology companies with the goal of driving innovation with UAVs in the insurance sector
- Developed techniques for three-dimensional analysis and exploitation of image-derived surface models for automated structure measurements with UAVs

LOS ALAMOS NATIONAL LAB | GRADUATE STUDENT INTERN

June 2012 - Sept 2012 | Los Alamos, NM

- Developed application for structure from motion processing for persistent surveillance IR imagery

PUBLICATIONS & PATENTS

- J. Arney and D. Nilosek. Analysis of print gloss with a calibrated micro-goniophotometer. *Journal of Imaging Science and Technology*, 2007.
- D. Nilosek and C. Salvaggio. Applying computer vision techniques to perform semi-automated analytical photogrammetry. *IEEE Xplore*, 2010.
- D. Nilosek, D. Walvoord, and C. Salvaggio. Assessing geoaccuracy of structure from motion point clouds from long-range image collections. *Optical engineering*, 2014.
- S. Schultz, D. Nilosek, and J. Dvorak. Biometric data hashing, verification and security, U.S. Patent 9,935,948, filed Sept 19 2016 and issued April 3 2018.
- S. Schultz, D. Nilosek, D. Petterson, and T. Harrington. Augmented three dimensional point collection of vertical structures, U.S. Patent 9,292,913, filed Jan 31 2014 and issued Mar 22 2016.