Abigail Stone
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EDUCATION

Middlebury College, Middlebury, VT — February 2021
Bachelor of Arts, Computer Science, *magna cum laude*
Thesis: *Speckle Noise Reduction for Multitemporal Synthetic Aperture Radar Imagery*
Relevant coursework: Computer Vision, Fourier Analysis and Signal Processing, Networks, Databases, Data Science, Information Visualization, Linear Algebra, Multivariable Calculus, Differential Equations, Remote Sensing in Geoscience.

Middlebury C.V. Starr School Abroad, Poitiers, France — Spring 2019
Completed third-year Computer Science coursework in French at l'Université de Poitiers.

EXPERIENCE

Research Assistant - Middlebury College — June 2020 - August 2020
Department of Computer Science — Middlebury, VT
Collaborated with two other students to study the applicability of synthetic aperture radar imagery to the evaluation of pavement quality on U.S. road networks. Evaluated several approaches to radar image pre-processing and developed a complete data analysis pipeline for comparison with ground-truth road quality data.

Wetlands Mapping Intern — June 2019 - August 2019
Vermont Dept. of Environmental Conservation — Montpelier, VT
Analyzed LiDAR and satellite imagery to delineate and classify wetlands. Added 42,000 acres of wetland mapping to the online Natural Resources Atlas. Wrote and documented a set of Python and SQL scripts to aid in data management and quality assurance of future datasets. Assisted with regulatory wetland site visits and bioassessment surveys.

Research Assistant - Université de Poitiers — April 2019 - June 2019
LIAS Lab — Poitiers, France
Designed and implemented a prototype IoT network of low-cost and low-power gateway devices and end-nodes using the LoRaWAN protocol. Configured an application server and evaluated geolocation accuracy and data reliability. Wrote a complete technical report in French.

Computer Science Grader — February 2018 - May 2020
Middlebury College — Middlebury, VT
Graded and provided written feedback for students' weekly homework and lab assignments in Introduction to Computing (Spring 2018, Fall 2019) and Data Structures (Fall 2018, Spring 2020)

Backcountry Hut Naturalist — Summers 2017 and 2018
Appalachian Mountain Club — Gorham, NH
Independently developed and presented daily natural history and environmental education lectures and interactive programming to overnight visitors of all ages. Collected and reported phenology data for a long term ecological monitoring project.

SKILLS

Programming Languages: Python, R, JavaScript, C, HTML/CSS, SQL.
Software and Tools: OpenCV, ArcGIS, QGIS, GDAL/OGR, Matlab, Leaflet, D3.js, Git, LaTeX, Linux.
Foreign Languages: French (professional proficiency)