

# EMMA R. GARVEY

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## EDUCATION

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**University of Vermont** *Graduated Cum Laude May 2019*  
Bachelors of Science in Mechanical Engineering, Minors in Computer Science and Mathematics *Overall GPA: 3.90*

## TECHNICAL STRENGTHS

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<b>Computer Languages</b>	Python, SQL, CSS, HTML, PHP, MATLAB, C++ on Embedded Devices
<b>Software &amp; Tools</b>	Tensorflow, Subversion (Git), LaTeX, CorelDRAW, Catalyst, SolidWorks, Linux
<b>Practical Skills</b>	Public Speaking, Technical Writing, Team Communication

## EXPERIENCE

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**Machine Learning Engineer** Fall 2019 - Summer 2021  
*Deep Analytics LLC, Montpelier VT*

- Developed computer vision models front to back. Including dataset development, architecture design, optimized training procedures, robust evaluation methods, and deployment on embedded systems.
- Mentored our Data Science Intern. Designed goals and provided guidance on challenging tasks.
- Wrote technical reports detailing project status and presented results to government clients at design reviews.
- Served as a primary contributor to five proposals for small business innovative research (SBIR) solicitations and Broad Agency Announcements (BAA's). One of which has successfully gone to contract.

**Lab Manager in the Fabrication Laboratory** Fall 2016 - Summer 2019  
*University of Vermont, Burlington VT*

- Lead a team of 11 technicians, hired 5 new employees, organized bi-weekly team meetings, maintained shift schedules, coordinated community outreach events and ensured the completion of all lab safety requirements.
- Delivered customized class presentations to outline the resources available in the FabLab

**Inertial Team Engineering Intern** Summer 2018 - Spring 2019  
*LORD Microstrain, Williston VT*

- Studied and developed techniques to improve dead reckoning on inertial systems at minimal user cost.
- Wrote software to parse a live stream of binary data, communicated between multiple inertial sensors during drone flight, and evaluated the effectiveness of various inputs.
- Developed a database storage system for inertial sensor calibration data.

**Senior Experience in Engineering Design** Fall 2018 - Spring 2019  
*University of Vermont, Burlington VT*

- Successfully designed a system of sensors to detect Glossopharyngeal breathing for a video game using biofeedback.
- Responsible for the project scope, detection algorithm, data collection method, visual representation of function, and product manufacturing.
- Designed and developed an interactive website to display output from the sensors in real time.

**Engineering Peer Mentor** Fall 2017 - Spring 2018  
*University of Vermont, Burlington VT*

- Graded assignments and provided feedback for professional and personal development to first-year engineering students.

## AWARDS AND HONORS - UNIVERSITY OF VERMONT

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**Edmund F. Little Award (Senior Mechanical Engineering Award)** April 2019  
*In recognition of meritorious work in the Mechanic Arts* *University of Vermont*

**Mechanical Engineering Nominee for Student Engineer of the Year** January 2019  
*In recognition of outstanding achievement and participation in University-related activities* *University of Vermont*

## Other Interests and Hobbies

- Hiking, reading, running, mountain biking, bike packing, wood working and metal working
- Hiked the entire Long Trail solo through Vermont in 2016 (273 miles)