

<h1>Esther Robb</h1>		<div>+ CONTACT</div> <div>(540)-270-7642</div> <div>erobb@vt.edu</div> <div>github.com/e-271</div>
<div>+ EDUCATION</div>		
2016-2019	Virginia Tech , Blacksburg VA Computer Engineering, B.S.	Graduating May 2019 GPA: 3.67
2013-2016	Northern Virginia Community College , Manassas VA Computer Science, A.S.	GPA: 3.76
Awards	Presidential Scholar, Dean’s List, Bradley Fellowship Scholar, Google Summer of Code 2018	
Conferences	Presented at SuperDARN Workshop 2018, Presented at AGU 2018	
Courses	AI, Machine Learning, Data Analytics, Computer Vision, Natural Language Processing	
<div>+ EXPERIENCE</div>		
Research Assistant – Computer Vision Lab at Virginia Tech , Blacksburg VA		Oct 2018 – Present
<ul style="list-style-type: none">Developing new deep learning techniques to allow models to identify new objects given less training (few-shot learning).		
Research Assistant – SuperDARN at Virginia Tech , Blacksburg VA		Jan 2018 – Present
<ul style="list-style-type: none">Using unsupervised machine learning techniques to classify years of data collected from dozens of auroral radars located worldwide.Drastically improved on existing methods to automatically classify radar backscatter, thereby increasing the availability and quality of ionospheric radar data used for scientific research.Applied clustering algorithms including Gaussian Mixture Model, DBSCAN, and K-means.Worked on a team of 3 with 2 Electrical Engineering Ph.D. students.		
Research Assistant – Xin Group at Virginia Tech , Blacksburg VA		Nov 2016 – Jan 2018
<ul style="list-style-type: none">Created an interface to visualize chemical structures, search a catalyst database, and dynamically call a regression algorithm for discovering chemical catalysts.Worked independently supporting a team of chemical engineering graduate students.		
Intern – Rincon Research Corporation , Chantilly, VA		June 2017 - July 2017
<ul style="list-style-type: none">Investigated centimeter-level GPS positioning on Android smartphones.Developed a Python toolkit to plot and analyze data obtained from the Android GNSS API.Led a team of 3 Computer Engineering interns in research direction and software design.		
Intern – Parsons Corporation , Centreville VA		June 2015 - Aug 2015
<ul style="list-style-type: none">Designed unit tests for a web application using browser automation (Selenium) in Java.Learned test-driven development, continuous integration (Jenkins, Confluence), and AGILE/Scrum.		
<div>+ PERSONAL & CLASS PROJECTS</div>		
[NLP / Deep Learning] News summarizer - Generate a 1-page summary of 10,000 news articles. [Machine learning] Mill failure prediction – Predict a rare event (0.6%) using a recurrent neural network. [3D Modeling] Raytracer – Create reflections and shadows in 3D scene by tracing rays of light.		
<div>+ SKILLS</div>		
Programming	Python, Java, C/C++, MATLAB, x86 Assembly, HTML/PHP/JS	
Tools	PyTorch, Scikit-learn, Tensorflow, Pandas, OpenGL, Hadoop, Spark, AWS	
Languages	English (native), Japanese (spoken), Mandarin (spoken/written)	