	Morga	n Dykshorn	
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Oak Park, MI 48237	www.morgandykshorn.com		
OBJECTIVE	Pursue software engineering position in robotics or machine learning		
EDUCATION	M.S., Computer Science, Specialization: Machine Learning	<i>[Expected]</i> May 2022 Georgia Tech , Atlanta, GA	A
	B.S., Computer Engineering, Minor: Computer Science	May 2018 Virginia Tech , Blacksburg	, VA
WORK EXPERIENCE	 General Motors Autonomous Mapping Embedded Software Engineer Responsible for end-to-end feature development, including architectural design, implementation, testing, validation on vehicle and in simulation Notable features include multi-threading, map-matching algorithm and map caching Scrum lead for embedded team, collaborating with product owners and developers to ensure work is correctly planned, prioritized and developers are not blocked 		
	 Connectivity Integration Engineer Developed internal tools to triage fl Root caused production database at Aggregated multi-million row database 	eet wide connectivity issues nd communication issues to bring ti ases into digestible dashboards for l	January 2020 – July 2020 mely, cost-effective solutions leadership decision making
	 Automated Driving Software Engineer Built POC map data processing and Used modern C++ paradigms to buil Collaborated with international team simulation 	packaging pipeline to unblock down d production intent embedded map n to build and validate maps using i	August 2018 – January 2020 Instream development Oping application Integration tests and closed loop
PROJECTS	 Twitter Sentiment Analysis using multi-head transformer Built a multi-head attention transformer model using PyTorch Trained model to create indicator of stock price using Twitter data Numerical Digit CNN Classifier Used Google Street View dataset to train CNN for classification of digits in images with 88% accuracy Built classification pipeline to identify digits, cluster numbers, and annotate the detected numbers IGA Prognosis Dashboard React Dashboard built for IGA Patients to visualize their prognosis Incorporated a Machine Learning derived prognosis using patient data and a decision tree model AutoDrive Challenge, August 2017 – May 2018 Perception team lead in competition converting a conventional vehicle to a level 4 autonomous vehicle Worked on all aspects of vehicle software including: sensor drivers, vehicle simulation, perception algorithms, and path planning 		
RELEVANT COURSEWORK	Undergraduate: Introduction to Robotics Applied Software Design Data Structures and Algorithms Embedded System Design Network Application Design	Graduate: Artificial Intelligence Techn Artificial Intelligence Machine Learning for Tradi Data & Visual Analytics Computer Vision Deep Learning	iques for Robotics ng
SKILLS	Experience: Docker, Git, Jira, Multi-threaded systems, CAN, Computer Networking, AWS EC2 Languages: C++, C, Python, JavaScript, Java, MATLAB, HTML, CSS, SQL Frameworks: QT, Robot Operating System, FreeRTOS, Boost, Eigen, OpenCV, PyTorch, React, Angular, Node.js, Spark, Heroku		
ACHIEVEMENTS	GM Executive Reverse Mentorship, GM Track Website Development Lead, DFSS Black Belt		
HOBBIES	Mountain Biking, Tennis, Camping, Skiing, Electronics tinkering		