

# Allegra Nichols

Email: [allegranip@yahoo.com](mailto:allegranip@yahoo.com)

<b>Objective</b>	A motivated engineer offering creativity, critical thinking, quick learning to add to a progressive forward-thinking company.	
<b>Education</b>	<b>Bachelors of Science, Computer Engineering</b> <b>Florida A&amp;M University, Florida</b>	<b>Apr 2016</b>
	<b>Nanodegree, Intro to Self-Driving Cars</b> Udacity, Austin Texas	<b>Feb 2021</b>
<b>Skills</b>	Python, C++, SQL, AutoCAD, Fusion 360, Databases (Oracle 10g -19c, SQL Server 2002), ROS, MATLAB, Linux, Unix, Jira, Confluence, TensorFlow, Anaconda, OpenCV, GitHub	
<b>Work Experience</b>	<b>Stock Options day trader</b>	<b>Dec 2020 – Present</b>
	<b>Samsung Austin Semiconductor, Austin, TX</b> <b>Automation Engineer</b> <ul style="list-style-type: none"><li>Lead engineer in charge of server upgrading, testing, validation and maintaining automation database infrastructure</li><li>Create web dashboards and applications to monitor key automation performance metrics of high-volume manufacturing environment</li><li>Develop complex ETL Oracle SQL queries, procedures, triggers and views to source sensor data from the FAB</li><li>Lead projects related to improvements in database early warning detection system</li></ul>	<b>Aug 2019 – Dec 2020</b>
	<b>General Motors, Austin, TX</b> <b>Software Developer</b> <ul style="list-style-type: none"><li>Create automated batch scheduling jobs using CA Autosys</li><li>Design custom reporting solutions using IBM Cognos 10.2</li><li>Utilize complex SQL to validate, test, troubleshoot data and create oracle database tables</li><li>Develop ETL code using IBM Infosphere DataStage 10 and 11</li></ul>	<b>Jun 2016 – Jul 2019</b>
	<b>Autonomous Ground Vehicle – Engineer &amp; Developer (Self-Starter)</b> <i>Austin, TX</i> <ul style="list-style-type: none"><li>Built an autonomous ground vehicle using a prefabricated chassis</li><li>Using sensor fusion to interface RPLIDAR and Pixy Cam with Raspberry PI Model B+ for object detection and localization</li><li>Interfaced motor controllers with Arduino Mega to control speed through pulse width modulation</li><li>Utilizing ROS to broadcast and receive data from sensors for decision making</li></ul>	<b>Jul 2019 – Present</b>
<b>Project Experience</b>	<b>Traffic Light Classifier - Developer</b> <i>Udacity, Austin, TX</i> <ul style="list-style-type: none"><li>Designed with TensorFlow, deep and convolutional neural networks, LeNet</li><li>Utilized computer vision techniques to transform images for classification</li><li>Achieved approximately &gt; 95% recognition accuracy</li></ul>	<b>May 2020</b>
	<b>Auto-wheel Measurement Tool Setup &amp; Configuration</b> <i>Samsung Austin Semiconductor, Austin, TX</i> <ul style="list-style-type: none"><li>Helped to setup the tool to measure the wheelbase for robot VHL in FAB</li><li>Configured to connect to oracle database using UDP messages</li><li>Created relational SQL queries to view data in UI to assist with forecasting of wheel orders for replacement</li></ul>	<b>Mar 2020</b>
	<b>Advanced Lane Finding - Developer</b> <i>Udacity, Austin, TX</i> <ul style="list-style-type: none"><li>Designed with advanced computer vision techniques, color transforms, gradients, and perspective transforms</li><li>Implemented a detection algorithm using a sliding window and search technique</li><li>Utilized a tracking class for each lane line to record important line information</li></ul>	<b>Mar 2020</b>
	<b>Route Planner - Developer</b> <i>Udacity, Austin, TX</i> <ul style="list-style-type: none"><li>Implemented using A* Search algorithm to find the shortest path between two points on a map</li><li>Utilized data structures - sets and dictionaries to avoid unnecessarily slow lookups</li><li>Applied an admissible heuristic (straight line) to ensure the direct path to the goal is being considered.</li></ul>	<b>Dec 2019</b>
	<b>Global Warranty Reporting – Lead</b> <i>General Motors, Austin, TX</i> <ul style="list-style-type: none"><li>Manage data reporting needs for over 1000 end users for all vehicle warranty data at General Motors</li><li>Collaborated with business partners to design and implement report solutions to satisfy data needs</li><li>Analysis and solve data discrepancies and drive to a solution all business partners agree on</li></ul>	<b>Jun 2018 – Jul 2019</b>
<b>Additional Links</b>	<b>GitHub Pages:</b> <a href="https://allegranip.github.io">https://allegranip.github.io</a> <b>LinkedIn:</b> <a href="https://www.linkedin.com/in/allegra-nichols-0b1252127/">https://www.linkedin.com/in/allegra-nichols-0b1252127/</a>	