

## Hirad Tabatabaei

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<b>RESEARCH INTERESTS</b>	Signal Processing, Machine Learning, Robotics, Computer Vision, Computer Networks, Circuits and Electronics	
<b>EDUCATION</b>	<b>University of Massachusetts Amherst</b> <i>Department of Electrical and Computer Engineering</i> <ul style="list-style-type: none"><li>• B.Sc. in Electrical Engineering</li><li>• Member of UMass Amherst Dean's List</li><li>• Recipient of UMass Amherst Chancellor's Award</li><li>• Member of UMass Amherst chapter of Eta Kappa Nu (HKN)</li></ul>	Expected graduation: May 2021
	<b>Georges Vanier Secondary School</b> <i>Toronto, Ontario, Canada</i> <ul style="list-style-type: none"><li>• Graduated from a math and science intensive program with the highest honors</li><li>• Graduated among the top 10 percent of all graduates in the Toronto District School Board</li></ul>	Graduated June 2017
<b>EXPERIENCE</b>	<b>RF Engineering Intern</b> <i>TTM Technologies Inc., Syracuse, NY</i> <ul style="list-style-type: none"><li>• I work remotely in a group as part of a project to build a Wireless Alarm system.</li><li>• During the project I have the task of designing and simulating RF circuits using PSpice.</li><li>• I also use MATLAB and Excel to analyze data that I receive from the simulations.</li></ul>	May 2020 - August 2020
	<b>College of Engineering Course Advisor</b> <i>UMass Amherst College of Engineering</i> <ul style="list-style-type: none"><li>• I had the task of advising new College of Engineering students in their course selection during the summer</li></ul>	May 2019 - August 2019
	<b>New Student Orientation Course Advisor</b> <i>UMass Amherst New Student Orientation</i> <ul style="list-style-type: none"><li>• I had the task of advising new students with their course selection process during the orientation in the summer</li></ul>	May 2018 - Aug 2018
<b>COURSEWORK</b>	Circuits and Electronics I and II, Digital Systems, Java Programming, Computational Tools for ECE, Analytical Tools for ECE, Signals and Systems, Probability and Statistics, Embedded Systems, Modern Physics and Materials, Fields and Waves, Semiconductor Devices and Material, Signal Processing Methods, Intermediate Electronics, Digital Signal Processing, Data Structures, Hardware Organization	
<b>SKILLS</b>	Java, C++, Python, MATLAB, C, Simulink, Microsoft Word, Circuit Analysis, PSpice, Atmel Studio, Mathematics, Electronics, Microsoft PowerPoint, Microsoft Excel, L <sup>A</sup> T <sub>E</sub> X, Amazon AWS	
<b>PROJECTS</b>	<b>MovieBase</b> A script made in Python that used a text file containing a list of movies which allowed the user to search, add and remove items from the list	

### **FleetManager**

A program in Java Involving extensive use of arraylists to simulate a fleet of cars which were used to make deliveries, based on their characteristics. The user had the ability to add, remove and maintain the cars in the fleet in the program.

### **DiceProbCalculator**

A script in MATLAB that showed the probability of the different possible sums for several dice. The probability was based on the user's input for the number of dice and the number of sides on each die

### **LegoArm**

Built a movable arm made of Lego by breadboarding a circuit and programming a microcontroller. Programmed the Atmel 328p microcontroller on the circuit using C programming on Atmel Studio

### **7-Segment LED Clock**

Built a fully functional LED clock by breadboarding a circuit and programming a microcontroller. Used the Attiny817 microcontroller, shift registers, C programming on Atmel Studio and a LED seven-segment display.

### **AWARDS AND HONORS**

<b>UMASS Amherst Eta Kappa Nu (HKN) Member</b>	February 2020 - Present
<b>Society of Collegiate Leadership and Achievement Member</b>	November 2019 - Present
<b>Honor Society Member</b>	August 2019 - Present
<b>National Society of Leadership and Success Member</b>	December 2018 - Present
<b>National Society of Collegiate Scholars Member</b>	April 2018 - Present
<b>Recipient of the UMass Amherst Chancellor's Award</b>	September 2017 - Present
<b>Member of UMass Amherst Dean's List (5 semesters)</b>	2017 - Present
<b>Ontario Scholar</b>	2017
<b>Toronto School Board Certificate of excellence in Math, Science and Computer Science</b>	2017
<b>University of Waterloo Fermat Math Competition Award of Distinction</b>	2016
<b>University of Waterloo Pascal Math competition Award of Distinction</b>	2015
<b>University of British Columbia Michael Smith Science Challenge Award of Distinction</b>	2015
<b>Member of High School Honor Roll</b>	2014-2017