

## Hirad Tabatabaei

---

### RESEARCH INTERESTS

Signal Processing, Machine Learning, Robotics, Computer Vision, Computer Networks, Circuits and Electronics

### EDUCATION

**University of Massachusetts Amherst**

Expected graduation: May 2021

*Department of Electrical and Computer Engineering*

- BSc in Electrical Engineering
- Member of UMass Amherst Dean's List and recipient of UMass Amherst Chancellor Award

**Georges Vanier Secondary School**

Graduated June 2017

*Toronto, Ontario, Canada*

- Graduated from a math and science intensive program with the highest honors
- Graduated among the top 10 percent of all graduates in the Toronto District School Board

### EXPERIENCE

**Course Tutor**

September 2020 - Present

*UMass Amherst Department of Electrical and Computer Engineering*

- I have the task of tutoring students in the course Signals and Systems at the department of Electrical and Computer Engineering. My responsibilities include holding exam review sessions and helping the students with their homework.

**RF Engineering Intern**

May 2020 - August 2020

*TTM Technologies Inc., Syracuse, NY*

- To be described later

**College of Engineering Course Advisor**

May 2019 - August 2019

*UMass Amherst College of Engineering*

- I had the task of advising new College of Engineering students in their course selection during the summer

**New Student Orientation Course Advisor**

May 2018 - Aug 2018

*UMass Amherst New Student Orientation*

- I had the task of advising new students with their course selection process during the orientation in the summer

### COURSEWORK

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

### SKILLS

Java, C++, Python, MATLAB, C, Simulink, Microsoft Word, Circuit Analysis, PSpice, Atmel Studio, Mathematics, Electronics, Microsoft PowerPoint, Microsoft Excel,  $\text{\LaTeX}$ , Amazon AWS

## PROJECTS

### MovieBase

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

### PathFinder

A program in Java Involving extensive use of arraylists to simulate a journey for the user which told the user of the different possible routes and their distances based on the amount of resources that were given by the user to 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