

# VIVEK HANASOGE

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248.921.9068 || hanasogevivek@gmail.com

## EDUCATION

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University of Michigan - Ann Arbor, MI (2017 - Present)  
Major: **BSE Electrical & Computer Engineering**  
Expected Graduation: May 2021

\*US CITIZEN\*

**Relevant Coursework:** Discrete Mathematics, Programming and Data Structures, Data Structures and Algorithms, Intro to Circuits, Intro to Logic Design, Intro to Computer Architecture, Data-Oriented Programming

## INDUSTRY EXPERIENCE

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### Enertia Microsystems Inc.

Embedded Systems Intern – Ann Arbor, MI

June 2019 – Present

- Worked with original developers to further program open-source software for Red Pitaya board to implement a Digital Phase Locked Loop which takes in input from a MEMS gyroscope and produces corrective feedback.
- Used Xilinx's Vivado to implement software and hardware changes for Red Pitaya's Zynq7010 SoC.
- Using Python and C to develop client-server (TCP/IP) program to provide input from a python GUI to a C server to write to custom and preconfigured IP modules using memory mapped I/O so that users could input custom data to Red Pitaya.

### CROMA Research Lab

Undergraduate Research Assistant – Ann Arbor, MI

May 2019 – Present

- Currently working on research project "Disposable Classifiers", which involves using computer vision algorithms in conjunction with crowdsourcing to create a set of rules that defines a user query and then use a classifier that can identify the query within a long video.
- Implementing UI using React and beginning to implement CV techniques using YOLOv3.

### HAI Engineering Consultants

Engineering Intern – West Bloomfield, MI

May 2018 – Aug 2018

- Maintained records of ISO 17025 and ISO 9001 engineering standards for use in audit reports and customer interaction.
- Validated companies according to ASTM standards in relation to testing and calibration of measuring devices
- Participated as an observer with auditing team on customer audits.
- Used MATLAB to evaluate material data sets through inter-laboratory comparison.

## PROJECTS

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### Web Scraping (Python, PHP, MySQL, HTML, CSS):

July 2019 - Present

- Using python's Selenium library, web scraped grade information of all offered U-M courses.
- Using PHP and MySQL, developing database backed website where users can search for a characteristic of a course and search results will display relevant courses.

### Personal Website (HTML, CSS):

May 2019 – July 2019

- Developed a professional website that displays information about myself such as my projects, academic interests, resume, and extracurricular activities.
- Used HTML and CSS to learn intricacies of web design and full website can be found at [https://vivekh99.github.io/Viveks\\_Website](https://vivekh99.github.io/Viveks_Website).

### To-Do List to Lock screen Android App (Java):

December 2018 – February 2019

- Programming android application that shows user a To-Do list from which they can input a list of tasks and save those tasks to avoid data re-entry.
- User can also take a screenshot and open the Gallery app to view the screenshot all from within the app, and then choose to set it as their lock screen.

### Machine Learning Classifier (C++):

November 2018 – December 2018

- Developed a Bayesian statistical model to classify discussion board posts into predefined categories to an accuracy of 87%.
- Used supervised machine learning techniques in conjunction with probabilistic word frequencies to infer likely groupings for each post.

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## Calculator Android App (Java):

June 2018 – July 2018

- Programmed android application using Android Studio that performs calculations on two numbers inputted by user.
- Application has ability to add, subtract, multiply, and divide any two whole numbers provided.

## SKILLS AND TRAINING

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- Software: C++, Python, Verilog, Java, HTML, CSS, MATLAB, Git, SQL, PHP
- Hardware Design: LTSpice, Altium Designer 19, Quartus II CAD, Altera DE2
- IDE/Editors: Visual Studio, Android Studio, Visual Studio Code, IntelliJ, Spyder, Sublime
- GitHub: <https://www.github.com/vivekh99>