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Description automatically generated **Hemanth Vikash Kannan Rajan**

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Apartment C, Collegiate Suites, 1304 Mary Jane Circle, Blacksburg

**EDUCATION**

**Bachelor of Science, Computer Science**

*Virginia Polytechnic and State University, College of Engineering* Expected Graduation: May 2020

GPA: 3.0

**Relevant coursework:**

Human Computer Interaction, Data Structures, Applied Combinatorics, Statistics, iOS Application Development, Machine Learning

**TECHNICAL SKILLS**

**General Programming:** Java, Python, Objective C, Swift, C/C++

**Web Development:** HTML5, CSS, and JavaScript

**Statistical analysis:** MATLAB, basic knowledge in R

**Machine Learning:** NLTK, NumPy, and Pandas in Python

**Cloud Computing:** AWS Associate Developer Level and Google Cloud

**Automation Tools:** Docker (Linux containers), Ansible

**Mobile App Dev:** Intermediate knowledge in iOS (Objective C and Swift)

**Animation:** Adobe MAYA

**Database Management:** MySQL, Oracle

**Wire Framing:** Balsamiq, Adobe XD, Lucid Chart

**Version Control:** Git, Jenkins

**Web Automation and Testing:** Selenium, TestNG

**Robotic Simulation:** Gazebo

**Microsoft Office:** Proficient in Word, Excel, PowerPoint

**RESEARCH EXPERIENCE**

**Systems Programming Team Undergraduate Research Lead,** *Hyperloop,* Virginia Tech September 2019 – Present

* Building software needed for the pod using socket programming in C++.
* Building a GUI that would display the required components in real time using QT (C++ and Python wrapper)

**Research Head,** *REMind,* Virginia Tech Aug 2018 – Present

* Building an infrastructure that collects and correlates sleep data (Rapid Eye Movement data and Vitals) via a free iOS sleep monitoring application written in Swift on the SwiftUI (beta) interface to find a correlation between the dreams and the data collected.

**Machine Learning Team Undergraduate Researcher,** *Unmanned Systems Lab*, Virginia Tech June 2019 – September 2019

* Automating the creation of a COCO datasets using python scripts.
* Using YOLOv3 to train the object detection algorithm on the COCO datasets to help detect objects and possible threats in the air.

**Data Analytics Team Undergraduate Researcher,** *Cyber-Human Systems*, Virginia Tech Aug 2018 – May 2019

* Using the results from the Twitter web survey that had been conducted to build an algorithm on Python that can classify hate speech on any social media platform.
* As a member of the UI team, built user-interfaces on Python and HTML5 to create a web survey that would be used by the entire University and hosted it on AWS

**Analytics Team Undergraduate Researcher**, *Cyber-Human Systems*, Virginia TechMar 2018 – May 2018

* Created an algorithm to attest the credibility of Wikipedia pages using the NLTK library on Python

**Design Team Undergraduate Researcher,** *TREC Lab*, Virginia TechAug 2017 – Dec 2017

* As an integral part of the design team, helped design a vital portion of the humanoid robot’s body on Gazebo and using Java to run the simulation.

**WORK EXPERIENCE**

**Test Analyst Intern**, Secure Identity Services (SIS) at Virginia TechJan 2018 – Present

* Developing the backend for an administration tool using Java that will be used by the team of administrators at Virginia Tech to manage student and faculty data.
* Built an application to be used throughout the University on Python that would manipulate user groups in the Duo 2-factor authentication platform.
* As a member of the testing team, tested University-wide applications using Java with the Selenium automation tool and the Cucumber wrapper.
* Built an alternate grid system to test all the applications used by the university using Selenium-Docker containers

**OTHER ACTIVITIES AT VIRGINIA TECH**

**Founding member**, International Society of Automation (ISA), Virginia Tech Feb 2018 – Present

* Member of the Education Committee.
* Brought guest speakers to lecture on relevant topics.