**Zein Hajj-Ali**

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**CAREER OBJECTIVE**

Carleton University graduate seeking a position in the field of artificial intelligence. Strong project management skills with an aptitude for working as part of a team. Committed to using artificial intelligence and a wide range of modern technologies in order to further advance society. Eager to work with an organization that has strong morals and aligns with my vision for the future.

**EDUCATION**

**Bachelor of Engineering – Computer Systems Engineering 2015-2019**

* Graduation date: winter semester, 2019
* Applied project: Systems Integration Project for Northern Nomad (SYSC 4907) (2019)
* Introduction to Machine Learning (SYSC 4906) (2019)
* Image Processing for Medical Applications (SYSC 4205) (2019)

**SKILLS & ABILITIES**

**Communication Skills**

* Effectively formulated and presented “Software Integration in Northern Nomad Tiny House” project during SYSC 4907, resulting in outstanding grades and achievements in the course
* Recruited and directed the high schools robotics team in order to achieve 2nd place overall in the regional Botball competition
* Collaborated with Qatar Charity and Mission20 in order to coordinate charity clothing drive resulting in the 2014 world record for most clothes donated in 24 hours

**Analytical Skills**

* Attained outstanding grades during the duration of undergraduate degree
* Assessed and evaluated numerous programs and algorithms while enrolled in SYSC 4101
* Examined various programs and system processes in SYSC 4810 in order to detect exploitable vulnerabilities
* Calculated funds and verified prospective costs for “Software Integration in Northern Nomad Tiny House” project (SYSC 4907), ensuring financial constraints were met

**Management Skills**

* Coordinated team members and delegated tasks for SYSC 4805’s Self-Balancing Arduino Robot project, successfully adhering to the project timeline
* Spearheaded development process for self-balancing algorithm and test cases
* Chaired troop meetings and organized events for 1st Doha Scout Group

**Technical Skills**

* Proficient in Java, C, C++, Git, Assembly, Bash, Matlab, and Python as well as various popular Python libraries and modules like Keras/TensorFlow, Scikit-Learn and MatPlotLib
* Advanced skills in concepts relating to Machine Learning models, Optimization techniques, Software Design patterns, Data Structures, Microprocessor Systems, Real-Time Systems
* Experience using Raspberry Pi, Arduino, FPGA, Linux/Unix systems, Windows systems, NodeMCU

**VOLUNTEER EXPERIENCE**

**1st Doha Scout Group Chairman 2012-2015**

1st Doha Scout Group (British Scouting Overseas), Doha, Qatar

* Collaborated with Qatar Charity and Mission20 in order to coordinate charity clothing drive resulting in the 2014 world record for most clothes donated in 24 hours
* Chaired troop meetings and organized events for 1st Doha Scout Group
* Instilled the values promoted by The Scout Association in order to foster success and independence in young adults

**APPLIED PROJECTS**

**Self-Balancing Arduino Based Robot 2019**

SYSC 4805, Carleton University, Ottawa, ON

* Coordinated team members and delegated tasks for SYSC 4805’s Self-Balancing Arduino Robot project, successfully adhering to the project timeline
* Spearheaded development process for self-balancing algorithm
* Designed and demonstrated unit tests and final tests
* Github repository: <https://github.com/ZeinHajjAli/4805-selfBalancingRobot>

**Northern Nomad Systems Development & Integration 2019**

SYSC 4907, Carleton University, Ottawa, ON

* Compiled comprehensive research on Northern Nomad and associated technologies
* Engineered tests for Raspberry Pi and Python based installed systems
* Delivered working prototype of multiplexing system for analog sensor readings
* Final report: <https://zeinhajjali.com/media/NNSI/ZeinHajjAli-NNSI-FinalReport.pdf>

**The Connected Mirror 2017**

SYSC 3010, Carleton University, Ottawa, ON

* Implemented Raspberry Pi for system and GUI control
* Installed Arduino system for controlling proximity sensors and lighting
* Built GUI and assisted in attaining the targeted system requirements