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 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