JASSIM ABDUL GAFOOR

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Technical Skills

Programming: Assembly, C++, Python, SystemVerilog HDL, JavaScript
Computer Software: MATLAB, SolidWorks, Adobe Photoshop, Autodesk Inventor, Clewin, CorelDraw X6, Adobe InDesign, Unreal Engine, Simulink, Simscape, Git, Arduino
Mechanical Tools: Bandsaw, Belt Sander, Drill Press, Dremel, Laser Cutter, Waterjet Cutter, Chopsaw
Electrical: Multimeter, Oscilloscope, Signal Generators, Soldering Rod

Education

Bachelor of Applied Science in Integrated Engineering **Expected Graduation April, 2021**
(Major in Computer Engineering, Minor in Electrical Engineering)
University of British Columbia
Vancouver, BC
Enrolled in co-op program with valid work permit

Projects

Exoskeleton Project | UBC **September 2018 – April 2019**

- Designing an exoskeleton prototype to help children with spinal muscular atrophy
- Implementing pulse-width control and power management systems to achieve a natural walking gait
- Collaborated with the 6-person team and designed the electrical systems

Simple iPod | UBC **January 2019 – February 2019**

- Practiced System Verilog skills to generate hardware to read from flash memory using a Field Programmable Gate Array
- Interfaced with embedded processors and hardware logic to implement Finite State Machines
- Implemented code in a modular and systematic fashion to be reused for further applications

MEMS Gyroscope Project | UBC **September 2018 – December 2018**

- Designed and implemented a Micro-Electro-Mechanical Systems Gyroscope
- Generated mask layouts with Clewin for design to be fabricated at a silicon foundry
- Tested gyroscope utilizing Finite Element Analysis on Autodesk Inventor
- Reiterated mechanical designs using Solidworks CAD to achieve maximum sensitivity and resilience
- Modelled energy and information flow diagrams for gyroscope using Simulink and Simscape
- Graduate level course focusing on Silicon on insulator structures

Self-Balancing Robot | Personal **September 2017 – October 2017**

- Constructed a robot with servos and gyro sensors to maintain an upright position
- Used Arduino software to implement Pulse Width Modulation control
- Made a closed loop feedback system to control velocity and displacement of robot

Solar Powered LED display project | Doha College **April 2016 – May 2016**

- Programmed an LED display using Arduino microcontroller to interact with public
- Promoted the use of Solar Power by displaying project at QSTEC Generation Expo which had 200+ attendees

Work Experience

Management Intern **|** Global Auto Parts (Distributors) W.L.L – Doha, Qatar **July 2015 - August 2015**

- Created macros to manage Excel files and reduced data processing times by 1 hour
- Monitored delivery system of 200+ orders a day to clients and garages in industrial warehouses and ensured sales quotas were met
- Wrote reports on possible improvements and action items which were submitted to coordinator

Mechanic **|** Auto Z Garage – Doha, Qatar **August 2015**

- Shadowed experienced engineers and mechanics to service vehicles
- Learned how to operate machinery such as wheel alignment system, automotive lifts, impact wrenches and hydraulic shop crane
- Collaborated effectively with 20+ mechanics from diverse backgrounds and strengthened relationships through team building events

Design Teams

Safety Officer | UBC Thunderbikes **May 2018 - Present**

- Building electric motorcycle to participate in E-moto competition 2020
- Leading recruitment and outreach process for expanding design team
- Managing website using Wordpress and JavaScript to improve user experience

Landing Gear Sub-Team Member | UBC Aerodesign **October 2016 - April 2017**

- Integrated with a team of 4 to build landing gear of the airplane
- Designed a new suspension system to support larger freight of new plane
- Constructed a test-rig to simulate landing scenarios in low risk
- Placed 3rd in SAE competition 2017

Extracurricular Activities

Marketing Executive | UBC EPIC **November 2017 – April 2018**

- Designed posters and banners using Photoshop for promotional club events
- Constructed personalized design projects for clients
- Organized marketing events for club members and public showcases
- Fundraised for club activities by selling hand-made merchandise and cards

AMS Game Development Association| AGDA **January 2017 - June 2017**

- Collaborated in a 4-person team with Unreal Engine to implement a 3D action game
- Utilized Photoshop to generate textures and design the heads-up display
- Implemented git version control software to collaborate with team

Robotics | Doha College Robotics **November 2011 - January 2016**

- Built and programmed robots to compete in various competitions
- Winner of National Robot Olympiad 2012 – Qatar and 2nd place in Botball 2014 – Qatar
- Led teams of 3 – 10 students and successfully performed at competitions