HULAIF BIN MUHAMMAD ILYAS

@ hulaif.ilyas@gmail.com   ☏ (+60) 14-7402274   in linkedin.com/in/hulaif-muhammadilyas/   👤 Age: 24
✉ Block 17-2-3, Taman Bukit Angkasa, Off Jalan 7/112a Pantai Dalam, Kuala Lumpur, W. Persekutuan.

EXPERIENCE

Autonomous Vehicle Software Engineer

Department of Robotics, School of Engineering, University of Colorado, Boulder

📅 2018   📍 Boulder, CO

▸ Construct a 1/8-scaled autonomous vehicle with built-in infrared, accelerometer, and image sensors.

▸ Proposed Idea: Create an autonomous vehicle 1) to traverse a given route while avoiding obstacle using IR sensors 2) to identify a stop sign and stop at the stop sign by establishing a multi-layered neural network stop-sign recognition software in the vehicle's programming.

▸ Responsible for tuning IR sensors, tuning vehicle PID, and developing corner recognition program.

Web Developer

Department of Computer Science, School of Engineering, University of Colorado, Boulder.

📅 2017   📍 Boulder, CO

▸ Proposed Idea: Design a website for promoting local restaurants and provide a take-out ordering system for customer to order from restaurants; Eat-Net. (currently offline)

▸ Collaborated in a team of 4, designing the front-end of the website using python API with MySQL.

Mars Crater Researcher

Department of Astrophysical and Planetary Sciences, School of Physics, University of Colorado, Boulder.

📅 2016   📍 Boulder, CO

▸ Proposed Idea: Simulate asteroids impact craters on the surface of Mars and investigate the effect of Mars' surface against impactors over a period of 100,000 years.

▸ Designed the simulation and recorded finding using MATLAB, then wrote the finding extensively in a technical paper.

Product Manufacturing Training

Department of Aerospace, School of Engineering, University of Colorado, Boulder.

📅 2015   📍 Boulder, CO

▸ Design and construct pressure and gyroscope sensor housing for academic uses.

▸ Designing sensor housing using SOLIDWORKS and convert design into CNC machine assembly language using SOLIDCAM.

Static Structure Analyst

Department of Aerospace, School of Engineering, University of Colorado, Boulder.

📅 2015   📍 Boulder, CO

▸ Design a static bridge design and analyze stress and strain of the designed structure.

▸ Was responsible for analyzing designed structure using MATLAB and create a 3-D simulated model identifying model bridge weak points.

Atmospheric Composition Researcher via Balloon-SAT.

Department of Aerospace, School of Engineering, University of Colorado, Boulder.

📅 2014   📍 Boulder, CO

▸ Construct a Near-Space Exploratory Scientific Vehicle (Balloon-SAT) that carries atmospheric equipment.

▸ Proposed study: To Investigate the O_2 and CO_2 atmospheric composition based on altitude.

OBJECTIVE

Searching for a simulating and rewarding role within a prominent institution where my college experience will be utilized efficiently. Possess numerous experience as a developer and analyst. Enthusiastic team player, eager to begin developing product align with the institutions' goals.

EDUCATION

B.A. in Computer Science

University of Colorado, Boulder

📅 2014 – 2018   📍 CO, USA

With minor in *Astrophysics & Astronomy*

D. in Engineering

INTI International University

📅 2013 – 2014   📍 Nilai, Negeri Sembilan

*American higher education foundation program

CODING SKILLS

Proficient at `Python` `C/C++` `MATLAB` `MS Office` `LaTeX`

Familiar with `MATHEMATICA` `MySQL` `JAVA` `HTML` `ROS` `Scala`

Learning `R` `Tablaeu` `JULIA`

TECHNICAL SKILLS

⚙ 3-D Model Printing
⚙ Agile Software Development
⚙ Neutral Network
⚙ Modeling & Simulating Data
⚙ Operating/programming CNC Milling Machine
⚙ Pair Programming
⚙ Robotic Design
⚙ Soldering Circuit Board
⚙ Single-Source Shortest Path (SSSP) Problems
⚙ Sorting Problems
⚙ Technical Writing
⚙ Tuning & Extracting Electronic Sensor Reading
⚙ Web Design with Bootstrapping

COMMUNITY PROJECT

WCC Leadership Summit 2017

Funded by: Education Malaysia, Los Angeles, California

📅 2017   📍 Boulder, CO

▸ Hosted by: West Coast Council (WCC), National Assembly of Malaysian Students in America (NAMSA)
▸ Organized by: Malaysian at University of Colorado, Boulder.
▸ Goal: Hosting WCC leadership council assembly meeting and help establish a foothold of a Malaysian Council in the Mid-West of United States.
▸ Funding: $ 10,000.

Passport 2 Malaysia

Funded by: Education Malaysia, Los Angeles, California

📅 2016   📍 Boulder, CO

▸ Organized and hosted by: Malaysian at University of Colorado, Boulder.
▸ Goal: Raise awareness of Malaysia and its culture as well as building connection amongst Malaysian and Non-Malaysian students.
▸ Funding: $ 1,000.

EDUCATION (CONTINUE)

B.A. in Computer Science

University of Colorado, Boulder

📅 2014-2018   📍 Boulder, CO

Classes Taken:

- Advanced Robotics
- Computation in Astronomy
- Computer System
- Data Structure
- Discrete Structure
- Introduction to Algorithms
- Introduction to Artificial Intelligence.
- Introduction to Robotics
- Linear Algebra with Com Sci Applications
- Operating Systems
- Machine Learning
- Numerical Computations
- Object-Oriented and Design
- Principles of Programming Languages
- Software Development and Tools
- System Administration

D. General Enginnering

INTI International University

📅 2013-2014   📍 Nilai, N. Sembilan

Classes Taken:

- Accounting
- Calculus I & II
- Chemistry I & II
- Comprehensive English
- Introduction to Japanese
- Physics
- Psychology

LANGUAGES

English
Proficient reader, writer, and speaker with experience writing technical papers and formal communications.

Malay
A native speaker. Proficient reader and writer.

Japanese
Beginner reader and speaker of Japanese language. 3 months experience.

GRAPHIC DEV. SKILLS

Adobe AfterEffect   Adobe PhotoShop   Autodesk Maya
SolidWorks   SolidCAM

LEADERSHIP ACHIEVEMENT

💼 **Director of Media and Program**
– Malaysian at University of Colorado, Boulder.
– 2016-2017
– Responsibilities includes managing events, managing welfare of students, managing social media, and etc.

💼 **Deputy Director of Welfare**
– Malaysian at University of Colorado, Boulder.
– 2015 - 2016
– Helping the director managed and supervised students welfare.