

MAURICE RAHME


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PROJECT HIGHLIGHTS


Baxter Plays Checkers

Northwestern University  Nov 2019 – Dec 2019  Evanston, IL

- Programmed a Baxter robot to play a full game of checkers.
- Project completed using ROS, MoveIt, OpenCV, and a custom AI move generator based on the minimax algorithm with alpha-beta pruning.
- Won 1st Place out of 6 teams .

BEng Thesis: PATBLC

The University of Edinburgh  Sep 2019 – May 2019  Edinburgh, UK

- Designed and built two laser transceivers to command an underwater rover. Inverse Kinematics based motor actuation maintains system uplink.
- Programmed pointing and tracking algorithm using elliptical template matching via occlusion-resistant camera input using Kalman-filtering in LABVIEW.
- Awarded prize: IMechE Best BEng Project for 2019 .

EXPERIENCE

Building Automation Intern

ASEA BROWN BOVERI (ABB)  May 2018 – Aug 2018  Dubai, UAE

- Co-designed the GRMS layout for the Zabeel One project worth 500,000\$.
- **Extension to August:** developed a building automation design tool using VBA. It generates a bill of quotation in PDF format. Saved 5 hours per client order.

Electrical Engineering Intern - Body Control Module (BCM)

Jaguar Land Rover  Jun 2017 – Sep 2017  Gaydon, UK

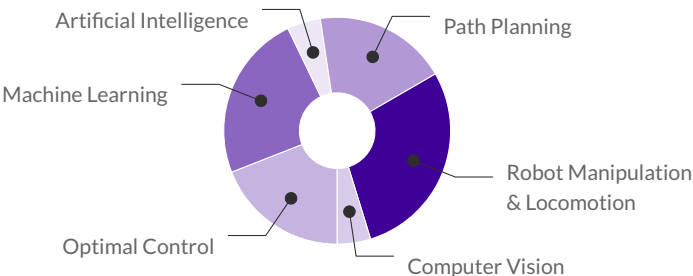
- Received 'Outstanding' grade on performance review.
- Produced BCM code for the 2017 Frankfurt Autoshow in STATEFLOW.
- Coded and manufactured a digital strain gauge and line and wall following RC-car module to supplement JLR's '4x4 in Schools' competition.

Aerodynamics '17 & Suspension '18 Team Manager

Edinburgh Univ. Formula Student  Jul 2016 – Jul 2018  Edinburgh, UK

- Managed teams of 8-10 people in each post and led training workshops.
- Taught and assisted team members with CAD design in SOLIDWORKS.
- Used SIMULINK to calculate wheel braking and cornering forces.
- Built a MATLAB design tool for Parallel/Ackermann steering design.
- Reviewed design reports and raised £9,000 in sponsorship.

INTERESTS



EDUCATION

MSc in Robotics

Northwestern University



- GPA: 3.85/4.0

B.Eng (Honors) in Electrical & Mechanical Engineering













































The University of Edinburgh

- First Class (GPA: 4.0)


</> LANGUAGES

Python	   
C++	   
C	   
LabVIEW	   
MATLAB/SimuLink	   
VBA	   

SKILLS

ROS	   
Robot Manipulation	   
Machine Learning	   
Artificial Intelligence	   
Path Planning	   
Bayesian Filters	   
Linux	   
Version Control (Git)	   
OpenCV	   
Analogue Electronics	   
SolidWORKS	   




AWARDS

 **IMechE - Best BEng Project**
The University of Edinburgh
The Institution of Mechanical Engineers

 **The Edinburgh Award**
The University of Edinburgh

 **The Spirit of Formula Student**
Formula Student UK

👤 LANGUAGES

English	   
French	   
Arabic	   
Spanish	   