

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. Won 1st Place.
- Project completed using ROS, MoveIt, OpenCV, and a custom AI move generator based on the minimax algorithm with alpha-beta pruning.

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

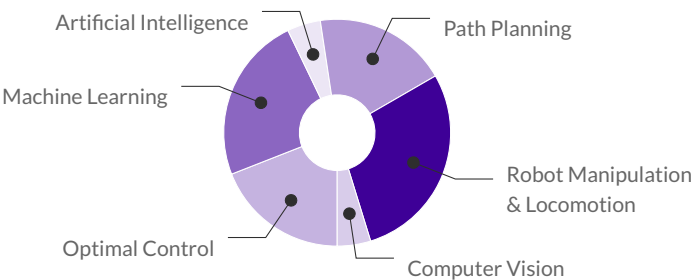
- Received 'Outstanding' grade on performance review.
- Produced BCM code for the 2017 Frankfurt Autoshow in STATEFLOW.
- Programmed and manufactured a digital strain gauge and line and wall following RC-car module to supplement JLR's '4x4 in Schools' competition.

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.
- Taught and assisted team members with CAD design in SOLIDWORKS.
- Built a SIMULINK model to calculate wheel braking and cornering forces.
- Constructed 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 Edinburgh Award**
The University of Edinburgh

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

👤 LANGUAGES

English	   
French	    
Arabic	    
Spanish	    