

Paul ASQUIN

Machine Learning, Robotics,
Computer Science & Aerospace

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Open to travel – Driving licence

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EXPERIENCES

Area Identification using Machine Learning and Robot Mapping

Skills

Awabot Intelligence

04/2018 – 09/2018 Intern – full time, Lyon, France

Identifying house rooms using 2D maps and *from scratch* neural networks reaching 87% accuracy. Integration and benchmark of robot mapping –SLAM– technologies such as Google Cartographer. Scientific articles redaction. Production of a documented and reusable code.

TensorFlow, ROS
Python, Linux, SLAM

Autonomous Drone Behaviour Calculation and Prototyping

Sherbrooke University – Technology Institute of Interdisciplinary Innovation

07/2017 – 09/2017 Intern – full time, Sherbrooke, Québec, Canada with *Pr Alexis Lussier Desbiens*

Design of drift-anchors and embedded deployment system for a flying and aquatic drone. Behaviour anticipation using GPS and computation on weather forecasts and Google Maps API. Development of a firmware-integrated data collection application and its analysis software.

Python, C++, SQL
Rapid Prototyping

President of Centrale Nantes Études

Centrale Nantes Junior-Enterprise – in-school engineering society

03/2017 – 03/2018 President, Nantes, France

Managing a 20-person team completing engineering projects for big companies and start-ups. Analysis of needs and project management in computer science, mechanics and robotics. Member of the Audit and Consulting program of the National Confederation, the CNJE.

Leadership
Strategy Building
Project Management

HIGHER EDUCATION

CentraleSupélec Paris – MSc in Artificial Intelligence & Computer Science

09/2018 – 04/2019 Graduating in 2019, Paris, France

One of the highest ranked engineering schools in Europe. Top level courses on programming, cybersecurity, embedded systems and international project management. Pursuing a double qualification in AI with courses on computer vision, optimization, reinforcement & deep learning.

Python
Keras, Sklearn
Tensorflow, Docker

École Centrale de Nantes – MSc in Robotics

09/2016 – 04/2018 Graduating in 2019, Nantes, France

Best engineering school in France for Robotics. Labs using Baxter and Nao robots. Courses on robot design and command, intelligent vehicles, path-finding algorithms, visual computing, humanoid robotics. Leadership of a 6-people team for a drone command project.

Kalman filters
Control Theory
C++, ROS, Python

ENGINEERING PROJECTS

Ion Thruster Design and Study

11/2014 – 06/2016 Lyon, France: propulseur-ionique.blogspot.fr

Design, prototyping and study of four 6.7μN ion satellite thrusters using Computer Aided Design, 3D-printing, performance estimation and vacuum experiments.

Machine Learning – Vision Duping

09/2018 – 11/2018 CentraleSupélec project, Paris, France

Hack image recognition algorithms to improve machine learning application security in autonomous vehicles. Use of ResNet and Torch with GPUs – Cuda.

Mosquito Identification in Epidemic Fight

09/2018 – 11/2018 Paris, France: mosquito.paulasquin.com

Web application to monitor and anticipate mosquito induced epidemics using machine learning for species identification. Collaboration with the Pasteur Institute.

NLP Concept Association System

09/2018 – 03/2019 CentraleSupélec project, Paris, France

Application aim to perform concept association using Wikipedia and human discussions to provide answers through Natural Language Processing.

ADDITIONAL INFORMATION

Languages

French – Native language
English – TOEFL C2 100/120
Spanish – Intermediate level

Interests

Music – Bass guitar
DIY, Aerospace
Photography

Self-learning

Guidance, Navigation and Control
Aircraft Systems Engineering
Flight and Orbital Mechanics

Future projects

Private Pilot Licence
Open-Source cardiac
massage machine