


ARTHUR FINDELAIR

SOFTWARE ENGINEER SPECIALIZED IN MACHINE LEARNING

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EDUCATION

ILLINOIS INSTITUTE OF TECHNOLOGY (IIT) - CHICAGO, IL, USA Expected August 2021

MASTER OF SCIENCE IN ELECTRICAL ENGINEERING (Current GPA: 4.0)

Relevant coursework: Machine and Deep Learning, OOP & ML in C++, Computer Vision, AI and Edge Computing.

ISAE-ENSMA - POITIERS, FRANCE Expected August 2021

DIPLÔME D'INGÉNIEUR IN AERONAUTICAL ENGINEERING

Relevant coursework: Tensor Calculus, Embedded Systems, Signal Processing, Data Managing, Probabilities.

LYCÉE KLEBER, CPGE, PSI* - STRASBOURG, FRANCE September 2016 - June 2018

Intensive program in mathematics and physics in preparation for competitive entrance examinations to French engineering schools.

PROFESSIONAL EXPERIENCES

INTELLIGENT ROBOTICS LAB, UNIVERSITY OF BIRMINGHAM - UNITED KINGDOM June - August 2020

MACHINE LEARNING RESEARCH INTERN

- Created and curated a 11200 instances data set to improved human-robot communication with a TensorFlow neural network.
- Built a pipeline in Python to optimize labeled image capture and real-time hand signs classification on camera video streams.
- Deployed a simulated environment to efficiently enhance the common-sense reasoning system (ASP) of an assistant robot.

ENSMASTEEL, FRENCH ROBOTIC CUP June 2019 - Mai 2020

TEAM LEAD

- Managed a 9-persons team over 10 months to create an autonomous robot competing in the French Robotic Cup.
- Implemented a robotic framework in C++ to guarantee robust control and navigation on custom hardware.
- Oversaw parallel evolutions of mechanical, electrical, and software sub-teams to ensure smooth system integration.

SELECTED PROJECTS

THISNIGHTSKYDOESNOTEXIST.COM

- Trained and fine-tuned a StyleGAN2-ADA model on Google Colab using a self-made 4500 images dataset from Instagram.
- Deployed a website visited more than 1000 times every day using NodeJS and Firebase to showcase GANs' potential.

AN INTER-LOCATING NETWORK OF CARS (TOP 10 OUT OF 250 TEAMS ON THE BLACK-OUT CHALLENGE BY SAFRAN)

- Designed and pitched an alternative to GPS through dead-reckoning, BLE beacons, and an inter-locating network of users.
- Engineered a self-locating module using IMU data and real-time vehicle signal from OBDII port achieving less than 1% drift.

NEURAL-NETWORK LIBRARY ACCELERATOR

- Accelerated CNN inference process by creating a Python package integrating an optimized C++ back-end library.

SKILLS

Programming Languages: Python • C/C++ • Java • Ada • SQL

Industry Knowledge: Deep Learning • Computer Vision • Signal Processing • Embedded Computing

Tools: Linux • Source Control (Git) • Cloud Computing • TensorFlow • PlatformIO • OpenCV • PlatformIO • QT

Soft Skills: Bilingual Communicator (English, French) • Initiative • Focus • Adaptability • Creativity & Innovation

ADDITIONAL EXPERIENCE

ISAE-ENSMA STUDENT COMMITTEE MEMBER 2019 - 2020

Collaborated on a 28-persons team to organize multiple school events, including Freshmen's weekend with a 40,000€ budget.

DRONE INSTRUCTOR AT ENSMAERO 2019 - 2020

Taught racing drone building process and flying fundamentals to half a dozen beginners.