Arthur Findelair

Dual Master's degree student Specialized in Machine Learning

Chicago, Illinois, USA
arthfind@gmail.com
312-619-1343

linkedin.com/in/arthurfdlr arthurfindelair.com github.com/arthurfdlr

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 & Deep Learning, Computer Vision and Image Processing, OOP & Machine Learning.

ISAE-ENSMA - Poitiers, France Expected August 2021
Diplôme d'Ingénieur in Aeronautical Engineering
Equivalent to **Master of Science** | Specialized in avionics software and embedded systems.

Lycee Kleber, Classes Preparatoires aux Grandes Ecoles (CPGE) - Strasbourg, France Sept. 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

- Deployed a simulated environment to efficiently enhance the common-sense reasoning system (ASP) of an assistant robot.
- Built a hand signs classification application to ease labeled images dataset creation and neural networks experimentations.
- Developed a TensorFlow model on a self-made dataset to enforce human-robot communication through hand signs.

EnsmaSteel, French Robotic Cup June 2019 - Mai 2020
Team Leader

- Managed an 8-persons team and a 2,000€ budget to create an autonomous robot competing in the French Robotic Cup.
- Oversaw parallel evolutions of mechanical, electrical, and software sub-teams to ensure a smooth system integration.
- Implemented a robust finite-state robotic framework in C++ to guarantee precise navigation and multiple actuators control.

Selected Projects

ThisNightSkyDoesNotExist.com

- Trained and fine-tuned a StyleGAN2 model on Google Colab using 4500 images scraped from Instagram.
- Deployed a website built on top of a 5000 generated images database using Firebase to showcase GANs' potential.

An inter-locating network (Top 10 out of 250 teams on the Black-Out Challenge by Safran)

- Designed and pitched an alternative to GNSS through dead-reckoning, BLE beacons, and an inter-locating network of users.
- Engineered a locating module through inertial measurements and real-time vehicle data achieving less than a 2% drift error.

Neural-Network library accelerator

- Programmed a Python package integrating an optimized C++ back-end library to fasten CNN inference execution time.

Skills

Industry Knowledge: Machine Learning (DNN, CNN, GAN …) • Computer Vision • Signal Processing • Microcontrollers • FPGAs
Programming Languages: Python (TensorFlow, Numpy, Pandas, PyTest, Scikit-Learn, PyQt) • C++ • Java • Ada • SQL
Tools: Linux • Version Control (Git) • Cloud Computing (Google Colab) • Visual Studio Code • PlatformIO
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.