Vincent Belus

Penultimate year student at Mines ParisTech engineering school

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Education

2017-2021	**Mines ParisTech**, *Master of Science and Executive Engineering, Specialized in Digital Engineering of Complex Systems (Data Science), Paris, France.*

- Machine Learning, Data Mining, Information systems, Operational Research, Statistics
- Material Sciences, Quantum Mechanics, Statistical Physics, Microbial Multiomics
- Accounting, Microeconomics, Stochastic Processes

2015-2017	**Lycée Thiers**, *Mathematics, Physics and Computer Science* *Preparatory school for top French Engineering School - MPSI/MP*, Marseille, France.*
2015	**Scientific Baccalaureate**, *European English Section, with honors.*

Experience

June 2019 - Present
(6 months)

University of Oslo - Guest Researcher

Application of Deep Reinforcement Learning to Fluid Mechanics and optimal design problems

- Implemented numerical solutions to Fluid Mechanics equations in C++, bridged them with a Python API
- Investigated optimal control strategies obtained through DRL (using OpenAI gym library, Tensorflow and other Python libraries)

2017-2018
(3 months)

Mines ParisTech - Software project for the startup XSun

Developed an embedded software for wildfire detection with a drone

- Developed a Wildfire detection algorithm on Python (AI, Deep Learning with Tensorflow and Image Processing)
- Developed an Android App to simulate the data acquisition of a drone with the Android Studio IDE (Java)

2018-2019
(9 months)

Mines ParisTech - Automatic and systems Department (CAS)

Designed a mechanical system to reproduce the human voice

- Material studies, 3D-modeling with CATIA®, piece manufacturing and 3D printing
- Developed and designed the hardware and embedded firmware of microcontroller

Computer skills and languages

Programming	Python, SQL, Git, Docker, C++, Java HTML/CSS/JS/Bootstrap, LaTeX	French	Native
		English	Fluent
Software	MS Office (Excel, Word, Powerpoint)	Spanish	Intermediate
		Japanese	Beginner

Miscellaneous

Student council	• Active member (600+ students, budget of $100 000)
	• Treasurer and manager of the school dorm's cafeteria (budget of $20 000)
Sport	Rock climbing (13 years), Ski (16 years), Snowboarding (8 years)
Hobbies	Guitar (6 years), Piano (3 years)
Social	• Presentation of scientific projects in middle schools and high schools in Paris
	• Weekly academic support in Mathematics and Physics
Other	Driver's license for 2+ years