Olivier Cornes

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Experience

RUAG **Emmen, CH**
Systems Engineer F/A-18 Hornet *June 2021 - Present*

- Leading the recertification program (life-extension from 5'000 to 6'000 FH) for avionics systems
- Deputy lead engineer in avionics and electrical systems
- Lead engineer for hydraulic, fuel and flight control systems

Daedalean **Zurich, CH**
Chief Systems Engineer *Febuary 2020 - August2020*

- Translated Daedalean's various research projects into products.
- Led the writing of the system level requirements aiming for FAA part 23 certification
- Instaured company-wide design processes according to ARP-4754
- Led a research project on computer vision systems (team of 4)

Aurora Flight Sciences **Luzern, CH**
Software engineer *June 2019 - December 2019*

- Introduced new concept for visualization of complex aircraft operations
- Wrote the software for schedule visualization and verification.

Aurora Flight Sciences **Luzern, CH**
Conceptual aircraft designer *October 2017 - June 2019*

- Led conceptual design effort of various electric vertical take-off aircraft
- Technical point of contact with customer
- Personal contribution was instrumental in capturing a 20 million dollar contract.

Massachusetts Institute of Technology **Boston, USA**
Master thesis *June 2016 - December 2016*

Design of executable space mission architectures using network flow optimization

- Pioneered a novel optimization approach to space transportation systems in collaboration with NASA.
- Devised new Mars mission with 37% reduction in cost with respect to NASA's reference mission.

Education

Algorithms & Data structures (Coursera Specialization) **Online**
Courses of the University of California San Diego & St-Petersburg University *2020–2021*

Institut Supérieur de l'Aéronautique et de l'Espace (Sup'Aéro) **Toulouse, F**
Diplôme d'ingénieur Sup'Aéro (M.Sc. in aerospace engineering) *2014–2016*

Ecole Polytechnique Fédérale de Lausanne **Lausane, CH**
M.Sc. in mechanical engineering, Overall grade: 5.44/6 *2013–2014*

Selected as one of 3 students for Sup'Aéro double-degree out of class of 187

EPFL **Lausanne, CH**
B.Sc. in mechanical engineering, Overall grade: 5.28/6 *2010–2013*

Patents & Publications

Patent: Certifiable lift rotor mount deployement mechanism

Conference article: *Basic Limitations of urban eVTOL design*, Forum 75, Vertical Flight Society, Philadelphia 2019

Conference article: *Design of executable space mission architectures using discrete network flow optimization*, International Astronautical Congress, Adelaide 2017

Skills

Programming technologies & languages: Python3, Linux, Pandas, Keras, Matlab

Trilingual: English, German, French