Christophe Foyer

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US and French citizenships; Eligible to work without restriction in the USA and EEA

Summary:

Mechanical Engineering graduate with experience in projects in mechatronics, software, and aerospace engineering. Demonstrated track record of finding creative solutions to engineering challenges while operating under tight budgets.

- *CAD, FEA and CFD*
- *Engineering Hand Calculations*
- *Fabrication (metals, plastics, and composites)*
- *Server Management and Software Development*

Education:

Washington University in Saint Louis — Saint Louis, United States
Bachelor of Science in Mechanical Engineering — Aug 2014 – Dec 2017
Study Abroad: - *RWTH Aachen, Germany (Summer 2017)* — 3.14/4.00 GPA
- *School for International Training, Iceland (Summer 2015)*

Experience:

Tata Steel Europe — Ijmuiden, Netherlands
Mechanical Engineering Intern — Apr 2018 – July 2018

- Successfully built a real-time thermal simulation in Python reducing estimation error by 82.4%
- Estimating slab temperature within 21°C leading to potential savings of one million euros per year
- Organized a training session on collaborative code management (git) for the department

Wash. U. Design/Build/Fly Competition Team — Washington University in St. Louis, USA
Co-Founder and Systems Team Lead — Mar 2016 – Dec 2017

- Co-led the team to 12th place out of 138 teams at the AIAA DBF 2017 competition
- Led the systems team to design and optimize aircraft internal systems through MATLAB simulations
- Managed an operating budget of $10,000 to purchase components and organize travel to competition
- Scheduled weekly meetings with the team and coordinated project deadlines

Domaine du Vivier — Le Mesnil Mauger, France
Seasonal farm hand — Jun 2015 – Aug 2017

- Maintenance and operation of farming equipment and various agricultural work during the summer

Projects:

Senior Design Project – Low-Cost CPV — Aug 2017 – Dec 2017
Foyer, Christophe; Rangwala, Adam; and Nana, Deep, "Water Lenses for Low-Cost Concentrator Photovoltaics" (2017). Mechanical Engineering Design Project Class. (https://openscholarship.wustl.edu/mems411/71/)

- Coding of FEA and ray tracing software for optics simulation in MATLAB
- Development of a sunlight tracking circuit and coding using Arduino
- Creation of a working proof of concept prototype increasing solar cell output by 860%.

Electric Longboard — Oct 2016 – Dec 2017
Design and construction of a custom-built electric longboard:

- CAD, FEA, and part fabrication in aluminium and FDM printing of plastic parts
- Electrical powertrain design including component selection balancing performance and cost
- Designed according to air travel and personal transportation regulations

Skills:

CAD / FEA / CFD:	*SolidWorks, Autodesk Inventor, XFLR5*
Programming:	*Python, MATLAB, Simulink, HTML, CSS, JavaScript*
Fabrication:	*Machining (Lathe, Mill), Composite wet layup (FG/CF), 3D-Printing, GD&T*
Software/OS:	*Microsoft Office Suite, Latex, Windows, Linux*
Languages:	*Bilingual English – French • Basic German and Icelandic*

*References available upon request