CHRISTOPHE FOYER

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United States: (+1) 816-419-6150 • France: (+33) 6-78-56-99-03
US and French citizenships; Eligible to work without restriction in the USA and EEA

SUMMARY:

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

- *CAD, FEA and CFD*
- *Engineering Hand Calculations*
- *Prototyping and Fabrication (metals, plastics, and composites)*
- *Embedded Systems and Software Development*

EDUCATION:

Washington University in Saint Louis   Saint Louis, USA
Bachelor of Science in Mechanical Engineering; Minor in Energy Engineering   Aug 2014 – Dec 2017
                                                                            3.14/4.00 GPA

Study Abroad: - *RWTH Aachen, Germany (Summer 2017) – Energy & Mechatronics*
                     - *School for International Training, Iceland (Summer 2015) – Energy*

EXPERIENCE:

Temporary Works Design (TWD)   London, United Kingdom
Design Engineer   Nov 2018 – Present
- Design of bespoke equipment and assemblies for civil engineering contractors using Autodesk Inventor
- Verification of structural parameters using engineering hand calculations and finite element analysis

Tata Steel Europe   Ijmuiden, Netherlands
Mechanical Engineering Intern – Student SWAT Team   Apr 2018 – July 2018
- Successfully built a proof-of-concept thermal simulation in Python reducing estimation error by 82.4%
- Estimating slab temperature within 21°C leading to potential savings of around 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: *[resume.cfoyer.com/#projects]*

Senior Design Project – Low-Cost Concentrator Photovoltaics   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 for the development of a sunlight tracking circuit using Arduino. 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. Electrical powertrain design. 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