CHRISTOPHE FOYER

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US and French citizenship | Eligible to work without restriction in the USA and EEA

SUMMARY:

Mechanical Design Engineer with experience in projects in aerospace, mechatronics, and software development. 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*

EXPERIENCE:

Temporary Works Design (TWD) London, United Kingdom
Design Engineer Nov 2018 – Present

TWD is an engineering company specialized in creating custom-designed tools and structures to perform transport and installation projects.

- Design of bespoke equipment and structures 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 Apr 2018 – July 2018

Tata Steel is Europe's second largest steel producer, with steelmaking in the UK and Netherlands, and manufacturing plants across Europe.

- Successfully built a large-scale thermal simulation in Python reducing temperature estimation error by 82.4%
- Proof-of-concept enabling potential savings on the order of one million euros per year if implemented
- 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
Founder Mar 2016 – Dec 2017

WUDBF is an aerospace-oriented engineering team that attends yearly competitions that are sponsored by the American Institute of Aeronautics and Astronautics (AIAA).

- 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

EDUCATION:

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

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

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%.

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, ROS*
Languages	*Bilingual English – French • Basic German and Icelandic*

*References available upon request