

CHRISTOPHE FOYER

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75 Wynford Road, Islington, N1 9TY London, United Kingdom
US and French citizenship | Eligible to work without restriction in the USA and EEA

SUMMARY

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

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

EXPERIENCE

Temporary Works Design

Design Engineer

London, United Kingdom

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

Engineering Intern – Student SWAT team

Ijmuiden, Netherlands

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 of several hundred thousand euros per year if implemented
- Organized a training session on collaborative code management (git) for the department

Wash. U. Design/Build/Fly Competition Team

Founder

Washington University in St. Louis

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

Bachelor of Science in Mechanical Engineering | Minor in Energy Engineering

Saint Louis, USA

Aug 2014 – Dec 2017

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

SKILLS

CAD / FEA / CFD	SolidWorks, Autodesk Inventor, AutoCAD, Fusion 360, XFLR5
Programming	Python, MATLAB & Simulink, C++, JavaScript, Linux
Fabrication	3D-Printing, GD&T, Machining, Composite wet layup (FG/CF)
Languages	Native English and French (Bilingual) • Basic German and Icelandic

ACADEMIC 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
- Development of a sunlight tracking circuit and coding using Arduino
- Creation of a working proof of concept prototype increasing solar cell output by 860%