

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

Education:

Washington University in Saint Louis, United States

Aug 2014 – Dec 2017

Master of Science in Mechanical Engineering

Bachelor of Science in Mechanical Engineering; Minor in Energy Engineering

3.14/4.00 GPA

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

Experience:

Tata Steel Europe

Ijmuiden, Netherlands

Mechanical Engineering Intern

Apr 2018 – July 2018

- Building and implementing a real-time temperature simulation of a great number of steel slabs.
- Creation of a modular software framework and implementation of an FEM heat transport model in Python.
- Performance optimization for multi-core processing over large datasets (over 3000 slabs at any given time).

Wash. U. Design/Build/Fly Competition Team

Washington University in St. Louis, USA

Co-Founder and Systems Team Lead

Mar 2016 – Dec 2017

Treasurer

Aug 2016 – May 2017

- Co-led the team to 12th place out of 138 teams at the AIAA DBF 2017 competition
- Designed aircraft internal systems with the propulsion team; in charge of setting team deliverables
- Managed an operating budget of \$10,000 for supplies and travel to the competition
- Scheduled weekly meetings with the team and set overall project deadlines

American Society of Mechanical Engineers

Washington University in St. Louis, USA

Member

Jan 2016 – Dec 2017

Event Planner

Sep 2016 – May 2017

- Advised ASME members on manufacturing and component selection for ongoing projects.
- Researched STEM-related speakers to fit within budget constraint, presented reasons to fund Michio Kaku's visit to campus, and secured a date for his visit

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%.

Motor Test Stand

Aug 2017 – Dec 2017

Design and construction of a motor test stand for Wash. U Design/Build/Fly:

- GUI development, serial communication protocol and sensor integration
- Coded in Python and Arduino C, packaged in .exe format for easy deployment to new Windows installations
- Measures motor-propeller-battery system RPM, current, voltage, and thrust and logs output to CSV

Skills:

CAD / FEA / CFD:

SolidWorks, Autodesk Inventor, XFLR5

Programming:

MATLAB, Simulink, Python, Arduino C, HTML, CSS

Fabrication:

3D-Printing, Machining (Lathe, Mill), Composite Manufacturing (wet layup)

Software:

Microsoft Office Suite, Windows, Linux, ROS

Languages:

Bilingual English – French • Basic German and Icelandic