Christophe Foyer

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

Education:

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

RWTH Aachen, Germany — Jun 2017 – Jul 2017
Certificate in 'Renewable Energy Technology' — *2.3/5.0 (Very Good)*
Certificate in 'Mechatronics and Product Innovation' — *1.3/5.0 (Excellent)*

School for International Training, Reykjavik, Iceland — Jun 2015 – Aug 2015
Renewable Energy Engineering and Resource Economics

Experience:

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, and 1st in the US Midwest
- Designed aircraft internal system including battery and motor selection with the systems team
- Managed an operating budget of $10,000 to buy supplies and organize travel to the competition
- Scheduled weekly meetings with the team and set project deadlines

American Society of Mechanical Engineers — Washington University in St. Louis, USA
Member — Jan 2016 – Dec 2017
Event Planner — Sep 2016 – May 2017

- Assisted ASME members with ongoing projects by advising them on manufacturing and component selection
- Researched potential 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: **www.cfoyer.com/#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 to facilitate deployment to new Windows installations
- Measures motor-propeller-battery system RPM, current, voltage, and thrust and logs output to CSV

Personal Transportation — Oct 2016 – Dec 2017

Design and construction of a custom built electric longboard for daily usage and international travel:

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

Skills:

CAD / FEA / CFD:	*SolidWorks, Autodesk Inventor, XFLR5*
Programming Languages:	*MATLAB, Simulink, Python, Arduino C, HTML*
Fabrication:	*3D-Printing, Machining (Lathe, Mill), Composite Manufacturing*
Software:	*Microsoft Office Suite, Windows, Linux*
Languages:	*Bilingual French - English • Basic German and Icelandic*