Christophe Foyer

http://cfoyer.com/
Manoir de Fribois, 14340 Saint Loup de Fribois, Calvados, France
France: (+33) 6 78 56 99 03 | United States: (+1) 816-419-6150
christophe.foyer@wustl.edu

Education:

Washington University in Saint Louis, United States August 2014 – December 2017
B.S. in Mechanical Engineering, 3.14/4.00 GPA
Minor in Energy Engineering

- Dean's List (Fall 2014)

RWTH Aachen, Aachen, Germany June - July 2017
Renewable Energy Technology | Mechatronics and Product Innovation

- Summer courses. Successful completion with 2.3/5.0 and 1.3/5.0 respective grades

School for International Training, Reykjavik, Iceland June - August 2015
Renewable Energy Engineering and Resource Economics

Lycée Sainte Marie, Caen, France September 2010 – July 2013
Serie S (Science specialization)

- Baccalauréat "Mention Bien" (with honors)

Experience:

Design/Build/Fly at Washington University in St. Louis March 2016 – December 2017
Co-Founder and Systems Team Lead March 2016 – December 2017
Treasurer August 2016 – May 2017

- Co-led the team to 12th place out of 138 teams at the AIAA DBF 2017 competition
- Designed aircraft internal system including battery and motor selection
- Worked on sub-projects with the Systems team including RC electronics training
- 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 at Washington University January 2016 – December 2017
Event Planner September 2016 – May 2017

- Assisted ASME members with ongoing projects by outlining steps for manufacturing processes and component selection
- Researched potential STEM-related speakers to fit within budget constraint, presented reasons to fund Michio Kaku's visit to campus, secured date for visit

Domaine du Vivier June 2015-August 2017
Seasonal farm hand *Seasonal

- Maintenance and operation of farming equipment and various agricultural work during the summer.

Ishinomaki Christian Center May 2014
Volunteer

- Construction of two wooden terraces for the local community and various maintenance work

Projects:

Senior Design: (Aug 2017 – Dec 2017)

Foyer, Christophe; Rangwala, Adam; and Nana, Deep, "Water Lenses for Low-Cost Concentrator Photovoltaics" (2017). Mechanical Engineering Design Project Class.

- *Coding of FEA and ray tracing software for optics simulation*
- *Development of a sunlight tracking circuit and coding using Arduino*
- *Creation of a working proof of concept prototype*

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 C++*
- *Measures RPM, current, voltage, and thrust and logs output to CSV*

Electric longboard: (Oct 2016 – Dec 2017)

Design and construction of a homebuilt electric longboard:

- *CAD, FEA, and part fabrication (machined aluminum and 3D-printed PLA)*
- *System design and component selection*
- *Designed according to air travel and personal transportation regulations*

Smart Home: (Jan 2015 – May 2017)

Custom-built smart home and media center system:

- *Voice recognition using google API*
- *Coded in Python on Linux-based OS*
- *Control over house appliances and interfacing with Open Source Media Center*

Robotics: (Dec 2013 – Jan 2015)

Design, coding, and construction of an internet controlled robot used for autonomous sensing and navigation testing:

- *Coded in Python on Linux-based microcontrollers*
- *Frontend: webpage coding in HTML and UI design*
- *Backend: hardware interfacing and communication over WebSocket between the webserver and the local microcontroller.*
- *Experiments in visual odometry using OpenCV and ROS (ongoing)*

Skills and Abilities:

CAD / FEA / CFD:	*SolidWorks (Motion & Simulation); Autodesk Inventor; XFLR5*
Programming Languages:	*Matlab, Simulink, Python, C++, HTML*
Prototyping:	*3D-Printing, Machining (Lathe, Mill, Power Tools), Composite Layups*
Software:	*Microsoft Office Suite, Windows and Linux*
Languages:	*Fluent in French and English / Basic German and Icelandic*