Filip Livancic

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- **Github:** `https://github.com/Filpill`

Education

City, University of London - Aeronautical Engineering (MEng) **Oct 2014 - Jul 2018**

- **Overall grade: First-Class Honours 70.3%**
- **George Daniels Scholarship - Sept 2015**
- **Relevant Modules:** Mathematics and Computing, Systems Engineering, UAV Design

St Gregory's RC Science College **Sep 2007 – Jul 2014**

- **A Level's:** Physics (A), Mathematics (B), Further Mathematics (B), Chemistry (C)
- **GCSE's:** 11 GCSE's (A*-C) Including English and Math

Work Experience

TUI Airways - Engineering Safety Analyst **Aug 2018 - Present**

- Building relationships with key stakeholders in the CAMO and Part 145 in support of the occurrence reporting system.
- Coordinating engineering investigations to generate root cause analysis and assure effective ocurrence risk management.
- Leading discussions in the Engineering Safety Action Group, and presenting safety data to drive risk mitigation actions.
- Improved occurrence reporting process flows with increased clarity and in compliance with Part CAMO and SMS regulation.
- Standardised statistical analysis of safety data and KPI's using Python scripts. **(Libraries: matplotlib, pandas, numpy)**

Booker Gliding Club – Cadet (Volunteer) **Feb 2013 - Jul 2018**

- Supported airfield operation, preparing airfield launch point with gliders/equipment and ensuring efficient ground movements.
- Identified aircraft defects through the performance of daily inspections to check for serviceability and logging defects.
- Enabled effective flying activity with glider launching, glider retrieval, and performance of the flight log administration.

Projects

Python Project - 2D Unsteady Heat Transfer Simulation **Jun 2021 – Jul 2021**

- Discretized heat equation, genralised the mesh for any dimensions and resolved using successive over relaxation solver.
- Evaluated an approximate solution of temperatures on the grid at each time step using the finite differencing method.
- Captured animation of temperature progression over mesh using function in matplotlib and stored result as gif image.

Arduino Project - 3D Printed Bluetooth Car **Apr 2020 – Jun 2021**

- Designed car with Solidworks, sliced STL's using Cura, printed parts on Ender 3 printer and further assembly by hand.
- Integrated PLA body structure and COTS parts: independent suspension, powertrain system, steering servo and wiring.
- Created Bluetooth serial communications system in Java and implemented GUI interface between PC and Arduino.

UAV Design Project - Payload Challenge - Project Engineer **Oct 2017 – Jul 2018**

- Defined system requirements and aircraft sizing in addition to coordinating aero/structures analysis with detailed design.
- Optimised aircraft configuration at conceptual design stage using Monte Carlo style simulation to maximise mission score.
- Coordinated manufacture processes of UAV aircraft staged out into sub-systems and supplemented with building instructions.

Skills

Technical Skills

- **Software:** Artix Linux, AMOS, ANSYS, APDL, AutoCAD, Cura, Fluent, SolidWorks, XFLR5
- **Documenting:** Microsoft Office (Word/Excel/Powerpoint/Visio), LaTeX, Vim
- **Programming:** Arduino, HTML, Java, MATLAB, Python (JupyterLab), SQL, VBA
- **Manufacturing:** 3D Printing, Laser Cutting
- **Languages:** English(Fluent), Croatian(Native), French(Basic)
- **Miscellaneous:** UK Driving License, BGA Bronze Badge, HF Investigator