Max Vergé-Kemp

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Inveterate maker, curious learner, determined experimenter
French-English bilingual, proficient in Mandarin Chinese
French, American and Irish nationalities

Skills

CAD: Autodesk Fusion, Autodesk Inventor, UltiMaker Cura, Onshape
Experimental tools: GMAT, Abaqus, Nastran & Patran, Xflr5
Coding: MATLAB, Python, GDScript, LaTeX, JavaScript, Arduino
Project management: Team lead, accountability, defining and assigning tasks, scheduling

Education

University of Bristol, Masters of Aerospace Engineering 2025
Graduated with First Class Honours

École Jeannine Manuel, Baccalaureate, International Option 2021
Physics, Biology, Chemistry and Mathematics stream, graduated with honours
· Harvard MUN (Model United Nations) participant 2020

Experience

Research Assistant for University of Bristol PhD researcher Summer 2022
FishBAC airfoil morphing skin led by Raphael Heeb, supervised by Dr. BSK Woods
· Conceived, designed and manufactured the rig interface plate of testing apparatus. Enabled exploring the response of morphing aircraft skins without the complexity of a full wind tunnel.

University of Bristol Archery Committee Member 2021 – 2025
Secretary (Yr 2), Captain (Yr 3), Competitions Officer (Yr 4)
· Rebuilt relationships with Student Union and sports' administration. Developed 5-year action plan and secured 10% additional funding.
· Raised member retention rate twofold during captaincy by revamping beginner's courses and encouraging integration through new social events.
· Conceived, pitched and executed 24-hour fundraiser shoot for BRIT challenge, raising over £800. Event embraced by the university Sports Director, becoming a flagship university charity event.

Projects

Third-year research project, supervised by Dr. Rainer Groh 2023 – 2024
Integrating Piezoelectric Actuators onto Kirigami Matrices to Influence Their Deployment
· Initiated implementation of piezoelectric actuators onto kirigami sheets, paving the way to lightweight variable deployment structures.

Preparation for research degree, supervised by Dr. Rainer Groh 2024 – 2025
Controlling the Deployment Geometry of Kirigami Structures Using Integrated Piezoelectric Actuators
· Proved stiffness of kirigami is influenced by varying the displacement of surface mounted actuators.
· Pioneered employing Digital Image Correlation (DIC) for kirigami strain analysis, producing detailed strain, stress and displacement meshes of tested samples.
· Developed digital twins of samples in Abaqus using DIC data, validating model behaviour; bypassing the need for experimental methods in future research.

Participated in GoAERO Competition to build a search and rescue unmanned aerial vehicle (UAV) 2024 – 2025
· Designed and documented a search and rescue UAV in 12 weeks. Our team of 6 deployed a "converge-diverge" strategy to distribute workload.
· Specialised in flight stability and control, coded a customized simulation environment to allow rapid prototyping of critical aircraft components.

Obtaining aircraft pilot licence Since 2024
LAPL (Light Aircraft Pilot Licence), first solo in August 2025 on DR-400

DIY Projects
Flight simulator control panels, hand-made radio-controlled aircraft, Raspberry Pi arcade machine...
· Effective problem solving. Adapted to and learned skills and tools through perseverance and curiosity. Completion of a dozen large-scale projects.