

SERGIU P. ILIEV

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EDUCATION	Carnegie Mellon University, Pittsburgh, USA 2019 – p. <ul style="list-style-type: none">Artificial Intelligence development for patient-specific modelling using wearables dataResearch in Human Musculoskeletal Biomechanics with a current GPA of 4.0
	Imperial College London, London, UK 2012 - 2016 Master in Aeronautical Engineering (MEng, ACGI) with 1 st class honors (equivalent to GPA 4.0). <ul style="list-style-type: none">Courses included: Aerospace Vehicle Design, Materials Science, Aerodynamics, Orbital Mechanics, Structural Dynamics, Numerical and Finite Elements Analysis, Propulsion, Ethics, CFD etc.Design & Construction Projects: Small UAV Plane, Wind Turbine, Jumping Robot.Experiments: Wind tunnel scale model tests, materials and structures mechanical tests.
	Ovidius High School, Constanta, Romania 2008 - 2012 Considered one of the elite science high schools in Romania, it offered the education needed to excel in various prestigious competitions and the chance to engage in voluntary work. Graduated first in class.
PUBLISHED PAPERS	Material Science and Engineering A, Elsevier - Measurement of an indentation size effect for Indium as a function of temperature, lead author. 08.2018 Journal of Space Weather and Space Climate, Édition Diffusion Presse (EDF) - The PAC2MAN mission: A new tool to understand and predict solar energetic events. 02.2015 For a full list of publications please visit: iliev.us/publications .
RESEARCH EXPERIENCE	OutSmart Insights: Aerospace Engineering Consultant advising BAE Systems. 2016-2019 <ul style="list-style-type: none">Collaborated with a team of engineers and researchers to identify technological trends in the aerospace industry for the Military Air & Information Department of BAE Systems.Conceptualized a 7th generation fighter aircraft employing disruptive technologies. Umeå University: Human Planetary Exploration course in Kiruna, Sweden. 08-09 2016 <ul style="list-style-type: none">Studied human spaceflight under Prof. Carol Norberg at the Esrange centre for space research. Institut für Raumfahrtssysteme: Space Station Design Workshop Project Manager. 07-08 2016 <ul style="list-style-type: none">Led a team of 20 to design a space station at the University of Stuttgart in Germany. Russian Space Agency: International Nanosatellite Design Collaboration. 08-09 2014 <ul style="list-style-type: none">Courses and practical astronautics projects with an international team in Samara, Russia. Imperial College London: Undergraduate Research Assistant. 06-07 2014 <ul style="list-style-type: none">Designed and led mechanical testing experiments on supercooled metal samples at -200° C.Responsible for sample preparation, operation of research equipment and data processing. European Space Agency Space Weather Satellite Design summer contest. 07-08 2013 <ul style="list-style-type: none">Created a winning space mission proposal, as part of a team in Alpbach, Austria.Responsible for propulsion and attitude control systems, calculated optimum orbit transfers.
PROJECT EXPERIENCE	HALE UAV Design: a high altitude long endurance solar-powered sailplane UAV. 2014 - 2015 <ul style="list-style-type: none">Led the Vehicle Definition team and was awarded the best-in-class <i>Centenary Prize</i>. Micro Jumping Robot: designing, building and testing of a miniature robot. 2014 - 2015 <ul style="list-style-type: none">Learned to use novel materials and micro-manufacturing techniques. Wind Turbine Design: CFD simulation, 3D printing and wind tunnel testing. 2013 - 2014 <ul style="list-style-type: none">Created as part of a team it achieved one of the top grades in my class. Aircraft Reticular Structure planning, manufacturing and stress testing. 2012 - 2013 <ul style="list-style-type: none">Won the best-in-class award by creating the lightest and strongest structure.
OTHER EXPERIENCE	Serial entrepreneur having founded VC and government backed aerospace start-ups <ul style="list-style-type: none">Spacept (Stockholm) uses Computer Vision to monitor infrastructure from space 2019 - 2020Iliev Aerospace (Romania) is a technical and engineering consultancy 2019 - 2020Astropreneur (London) blockchain project proposed through Entrepreneur First 2018 - 2019 Citigroup: Business Technology Analyst in the Global Markets Department in London. 2016 - 2018 Delegate at the 72 nd 'New Enlightenment' European Forum in Alpbach, Austria. 07-08 2016 Rector's Ambassador volunteer at <i>Imperial College London</i> . 2013 - 2015

LABORATORY EXPERTISE	<p>Design, building and testing of a scale hybrid rocket engine with the Aeronautical Society.</p> <p>Subsonic and supersonic wind tunnel operator (testing of aircraft models, wind turbines).</p> <p>Autonomous user for the Instron 5969 50kN Dual Column and Dynamic-Mechanical Thermal Analysis testing systems (indentation, compression, tension, bending tests) using LabView.</p> <p>Optical and scanning electron microscope operator for the failure analysis of materials.</p> <p>Prototype manufacturing experience (3D printing, laser cutting, turning, milling, CNC machining).</p>
SELECTED AWARDS	<p>Young Lunar Explorer Prize, International Astronautical Congress, by <i>ESA ILEWG</i> 2018</p> <p>Imperial Science Award for Independent, Open-Minded Thought 2016</p> <p>Project Merit Prize for the best-in-class dissertation, awarded by <i>Imperial College</i> 2016</p> <p>LSRS Student of the Year Award for outstanding professional performance 2015</p> <p>Ambassadors Diploma for outstanding academic performance abroad 2014</p> <p>Rector's Ambassador Award for representing the image of <i>Imperial College</i> 2013</p> <p>Recipient of 10+ academic scholarships throughout university 2016</p> <p>1st prize for exceptional performance in school subjects offered by <i>Ovidius</i> 2012</p> <p>1st prize at the international NASA Ames Space Settlement Design Contest 2011</p> <p>1st prize at the national <i>Procopiu Physics Laboratory Techniques Contest</i> 2011</p> <p>Honor: National Astronomy and Astrophysics Annual School Olympiad 2011</p>
LANGUAGE SKILLS	<p>English: Proficient level (C2) - Cambridge Certificate of Proficiency and iBT TOEFL certificates.</p> <p>French: Independent level (B1) - Diplôme d'Etudes en Langue Française DELF B1 and B2 certificates.</p> <p>Russian: Beginner level (A1) - Imperial College Horizons Language certificate.</p> <p>Romanian: Native speaker - 9.6/10 in the Romanian Language & Literature Bacalaureate.</p>
COMPUTING ABILITIES	<ul style="list-style-type: none"> • Excellent knowledge of specialized engineering software (ProE/Creo) and the Autodesk Suite. • Advanced knowledge of MATLAB, LaTeX, Python and SQL; medium knowledge of C# and Java. • Theoretical and practical knowledge of computer simulations: CFD in StarCCM+, Finite Elements Analysis in Abaqus and Orbital Mechanics in Systems Tool Kit (ATI STK). • Obtained the ECDL Expert certificate in Word, Excel, PowerPoint, Project and Access.
LEADERSHIP	<p>Regularly led university team competitions due to the desire to collaborate, organize, motivate and make efficient use of each member's skills in order to develop and implement a winning strategy.</p> <ul style="list-style-type: none"> • NASA Space Settlement Design Contest, winning the 1st prize, learning project and team management skills that were further developed at the ESA Alpbach Space Contest. • Coordinated teams to design and build a high-altitude scientific balloon and to conceive an innovative non-polluting airplane concept in the Airbus-Fly Your Ideas contest. • Achieved the Level 5 qualification from the Institute of Leadership and Management.
PUBLIC SPEAKING	<ul style="list-style-type: none"> • Delivering a 30 min presentation in front of 100+ students, professors and researchers at the Conference of Students Professors and Researchers in Oxford. • Presenting at conferences and outreach events on technical and inspirational subjects. • Participating in live interviews for radio and TV stations, about my engineering experiences.
INTERESTS AND ACTIVITIES	<p>In my spare time, I practice sports ranging from diving to flying. I also enjoy reading both S.F. books and science papers and based upon them, conceive original hypotheses and ideas. In addition, I have:</p> <ul style="list-style-type: none"> • Collaborated in the British Engineers without Borders contests to aid developing countries. • Participated in the international ENEL Green Energy and NASA Green Aviation contests. • Competed in motorsports and obtained the European driving license categories A and B. • Obtained the international license for boat operators C (rivers), D (sea) and S (sailing). • Currently working towards the sailplane pilot license and the PADI Master Diver qualification.
MEMBERSHIPS	<p>Affiliate member of the <i>Royal Aeronautical Society</i>, the <i>American Society for Engineering Education - Biomedical Engineering Division</i> and the <i>American Institute of Aeronautics and Astronautics</i></p> <p>Associate member of the <i>City and Guilds of London Institute</i> and Ambassador of <i>STEMNET UK</i></p> <p>Honorary member of <i>CAESAR (Centre for Accessing Expertise of Students and Alumni from Romania)</i></p>
REFERENCES	<p>Recommendations from professors, co-authors and colleagues are available upon request.</p>