David Jon Gooding MSc BSc

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I am an Optical System Engineer with 5 years of experience in the space industry including optical payload design for earth observation, management of R&D projects, mission concept studies and CMOS sensor characterisation. I am looking for a new challenging role to build on this experience and make a valuable contribution to important science with your organisation. Referees are available upon request.

Relevant Skills

Development of optical systems: Full lifecycle involvement and responsibility of space borne optical instrumentation with reflective and refractive components; concept to in-orbit operation

Performance assessment of optical systems: MTF characterisation of EarthCARE's TIR instrument. MTF and SNR testing of commercial high-resolution imagers, and characterisation of astronomical MCT infrared detectors at ESA

Technical coordination and leadership: Product owner of a commercial imager and technical lead of R&D project to develop a deployable space telescope; leading multi-disciplinary teams, and providing customer training

Employment History

Surrey Satellite Technology Ltd., Guildford, Surrey, UK (September 2016 - Current)

Optical Payload Systems Engineer



- Current Payload Chain Subsystem Lead for 100kg EO satellite for institutional customer
- Design, build and test of 1m GSD cameras for Earth Observation missions (Zemax, SolidWorks etc.)
- Data analysis for characterisation of MSI/TIR instrument of ESA's EarthCARE mission
- Development of Python code to commission EO satellite imagery
- Leading several internal R&D projects to further SSTL's optical performance capabilities
- Lead bids and proposals for R&D funding from government for novel instrumentation
- Supporting future mission concept studies and providing technical support to bids and business development
- Internal secondments to Mission Concepts team and EO Business Line team
- · Leading member of the outreach team, communicating STEM subjects and space to the community

European Space Agency, ESTEC, Noordwijk, The Netherlands (Oct 2015 - September 2016)

Young Graduate Trainee



- Payload technology validation activities on infrared detectors for future astronomy missions
- Characterised MCT IR detectors
- Presented a paper at the SPIE Astronomical Telescopes & Instrumentation conference 2016

Hawk-Eye Innovations Ltd., Sony, UK (Sept 2014 – June 2015)

Part-time Goal Line Technology (GLT) Systems Operator

- Setup, testing and operation of GLT system for Premier League football matches
- Liaising with match officials and broadcast directors
- · Operation of complex software packages to ensure data quality and reliability

HAWK-EYE

Rutherford Appleton Laboratory (RAL), Oxford, UK (July – Dec 2011)

Research Assistant, Millimetre-wave Technology Group, RAL Space

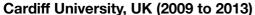
- · Professional placement as part of undergraduate degree at Cardiff University
- · Specification testing and design of Atacama Large Millimeter Array (ALMA) components
- · Represented the European Southern Observatory (ESO) at the Innovation Convention 2011, Brussels
- Contributed to a RAL presentation during an annual ALMA board conference I attended in Santiago, Chile



Education

University College London, London, UK (2014 to 2015)

MSc Space Science & Engineering - Distinction



BSc Physics with Astronomy (with Prof Place) (Hons) - 2:1

Universidad de Cantabria, Santander, Spain (Jan to July 2012)

Diploma in Experimental Physics (Erasmus programme) - Distinction

Farnborough Sixth Form College, UK (2006 to 2008)

A-Levels: Physics - B, Mathematics - B, Chemistry - D and General Studies - C

Lord Wandsworth College, UK (2000 to 2006)

GCSEs: 6 As, 4 Bs.

Other Employment Volunt

- Universidad Internacional Menéndez Pelayo (UIMP), Madrid, Spain
 Teaching Assistant (Summer of 2013 & 2014)
- SkiBound, TUI, Tignes, France Ski Rep (Nov 2013 - Feb 2014)

Hobbies and Interests

Sport

- Regular football player; captained and coached department football team at university
- Played university level hockey for 2 years
- Ran the Amsterdam Marathon 2015
- · Avid skier and snowboarder

Qualifications and Awards

- Licentiateship City and Guilds Institute (LCGI) awarded during my placement at RAL
- Qualified Salomon Ski Technician

Skills and Experience

Leadership

- Leading a team of 8 engineers in a £250k UK Space Agency funded project
- Organised and ran educational activities for 200+ Spanish students

AIV

 Preparation, alignment, bonding and testing of refractive and reflective optical systems for space

Languages

 Native English speaker, intermediate Spanish and basic French

UCL







Volunteering

- Instituto de Educacion Tecnologica y Cientifica (IETC), Naco, Honduras
 - English and Maths Teacher (April May 2014)
- LOCOG, London 2012 Olympics, London, U Venue Entry Team Member (July 2012)
- Hands On Disaster Response Fundraiser (2010-2014)

Travel

- Worked and/or studied in Austria, Spain, France, Honduras and the Netherlands
- Backpacked around China, Europe and Central America
- · Full clean drivers licence
- Duke of Edinburgh Bronze and Silver
- BTEC First Diploma in Public Services
- RYA Keelboat Level 2
- First Aid Trained

Problem Solving

 Lab experience at SSTL, RAL and ESA involving a wide range of problem solving on a day to day basis both individually and as a team

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- · Very IT literate; able to use all common software
- Data analysis and test automation with Python
- · Regular user of SolidWorks and Zemax
- Experience with Autodesk Inventor (FEM), Fusion 360, ESATAN-TMS, STK, LaTeX, DOORS and Microsoft Project, MatLab, VBA