

STATEMENT

Profile	<p>Mechanical engineer by training, with 2 years professional experience and 6 years as a research engineer. Experience in projects ranging from clean burning transport solutions (UBC/Westport) to defence technology (UK MoD & BAe Systems) and technology demonstration (QinetiQ). Ability to integrate key practical, theoretical and business demands of project engineering.</p> <ul style="list-style-type: none"> ▪ Mechanical/Electronic Design ▪ ▪ Manufacture Contracting ▪ ▪ Problem Solving ▪ ▪ Combustion Diagnostics ▪ ▪ Laser Diagnostics ▪ ▪ Experimental Design ▪ ▪ Data Analysis ▪ ▪ Image Processing ▪ ▪ Data Application ▪ ▪ Teamwork/Mentoring ▪ ▪ Presentation Skills ▪ ▪ Time/People Management ▪
Attributes	<p>Goal setting and results orientated approach to work, with an unwavering demand for the highest standards. Diligent, organised and conscientious approach with an inherent ability to be technically and personally astute. Highly effective listener and communicator, regardless of topic or audience. Clear ability to lead from the front, or from within the team, as appropriate, and resolve conflict quickly and amicably. Coherent professional development plan moving from technical work to project management and on to business strategy/development.</p>

EDUCATION

Doctor of Philosophy	<p>Pending (Spring '10) Jan. '04 – to date University of British Columbia, Vancouver, Canada</p>
Master of Engineering	<p>First Class Honours Oct. '99 – Jun. '03 <i>Imperial College of Science Technology & Medicine, London, UK</i> Sir Bruce White Prize for Best Undergraduate Thesis</p>
Position	<p>Research Assistant working towards <i>Doctor of Philosophy (Engineering)</i> Jan. '04 – to date</p>

ACADEMIC EXPERIENCE @ UBC

Summary	<p>Redesigned and retrofitted an optically accessible engine simulator for use with laser diagnostics to further the understanding of clean burning natural gas engines. Originated and implemented cylinder and piston enhancements; designed and installed high pressure (2500psi) fuel system; produced and executed new hardware-based logic control system for experimental apparatus. Experimental rig design now highly flexible and capable of an extensive range for tests with future expansion potential.</p> <p>Awarded and managed RFQ/RFT's and resultant contracts, totalling over \$70k, for parts manufacture, test-rig components, experimental equipment and consumables. Guided work-package submissions and completion through expectation and time management of 2 electrical and 5 mechanical technicians. Responsible for design, space allocation and 'fitting-out' of new 1000 sq. ft. laboratory.</p> <p>Extensive presentations of research and facilities made to groups numbering 4 to 40 including high-school students, University benefactors and Nobel Laureates.</p>
Teaching	<p>6 years of teaching experience at University and privately, covering: tutorials, laboratories, field trips and lectures in thermofluids, engineering design and dynamics. Recipient of one of ten Graduate Teaching Assistant Awards in 2009 for contributions to UBC and quality of instruction.</p>

PROFESSIONAL EXPERIENCE

BAe Systems	Defence Contractor, <i>Carbon Fibre Composites</i>	Jun.– Aug. '02
▪ Production Logistics ▪ Carbon Fibre Composite Lay-up ▪		
Assistant Project Manager for return to BAe of 'wing-box' construction for <i>Airbus A320</i> aircraft. Organised: 2000 sq. ft. factory floor space, 18 staff, 30 fixtures and their material supply, and a staggered return for continuous production. Upon leaving first components were coming off the line for quality assessment, and full production capacity was on course for 8 units/week. Supporting experience gained in manual and automated carbon-fibre production processes.		
UK Ministry of Defence	<i>Nuclear Propulsion Integrated Project Team</i>	Jun.– Aug. 01
▪ Emergency Business Planning ▪		
Developed Business Continuity Plan directly for Director (Commodore) Nuclear Propulsion to ensure continuous operation of UK Navy's <i>Nuclear Operating Authority</i> under all conditions. In the event of an emergency plan outlined functions and roles of a reduced team ranging from an initial skeleton of 8 (one hour 'post event') to full team of 200 (three months 'post-event'). Equipment requirements to ensure and maintain nuclear safety, vessel operability and staff function were also detailed. Proposal presented to Director on last day in post.		
QinetiQ	Technology Consultant, <i>Business Development</i>	Jun.– Aug. '00
▪ Equipment Commissioning ▪ Business Opportunity Assessment ▪		
Installed gas and fibre management systems for \$2MM silicon carbide manufacturing facility demonstrator plant. Compiled market assessment for the European urban commuter rail network. Sent for review at Board level to support potential business diversification.		
UK Ministry of Defence	<i>Warship Support</i>	Aug.– Sept. '99
▪ Risk Assessment ▪ System Integration ▪		
Completed surveys of vessel structural safety for all UK Navy Destroyers. Common fleet-wide defects identified. Findings contributed to life-extension assessment by Navy Admiralty and to inspection and maintenance regime of The Fleet. Complied munitions re-classification report for all weapons held on UK Navy Destroyers in support of UK Navy worldwide operational integration and safety procedure alignment.		
UBC Energy Action X Competition Winner (09)	Competition winner with a team entry (from myself and a colleague) to make the UBC Vancouver campus net carbon zero . As a result, now a member of the UBC Alternative Energy Committee .	
President of Dining Society (Jan. '04 – Nov. '05')	President of Dining Society at Graduate residence; guided decisions made about the food eaten by 180 people ; helped manage \$600k budget & staff. Resolved significant difference of opinion between residents and management pertaining to missed meals.	
Raleigh International (Oct. – Dec. '03)	Volunteer and fundraiser (of \$13k) for expedition in southern Chile . Extensive teambuilding; classroom construction in a remote community ; national park infrastructure improvement ; basic mountaineering.	
Fulcrum Challenge (Jul. '97)	Volunteer in a small expedition (30 people) to Botswana to complete previously unattempted surveys of local ornithology and rock art for submission to the National Museum of Botswana .	
Sporting	Swimming (indoor & open-water), running (half & full marathons, road & trail), snowboarding , mountain biking and volleyball .	
Hobbies	Active photographer ; build and ride single speed & fixed gear bikes ; keep abreast of international affairs ; enjoy good food and wine ; avid traveller and have travelled extensively as a result.	

ACHIEVEMENTS

NGO WORK

INTERESTS