

Career History

2011-present	Principal DIRTBAGGIES Irvine, CA, USA <ul style="list-style-type: none">Responsible for all aspects of business: product design and development, production management, marketing, sales force management, accounting, intellectual property.Wrote and applied for international utility patents.Products are recognized as “truly innovative” and received highest praise in the media.
2010-present	Design and Engineering Consultant TIM LANE DESIGN Irvine, CA, USA <ul style="list-style-type: none">Provide mechanical engineering consulting and contract design services.
2003-2010	Design Engineer FELT RACING LLC Irvine, CA, USA <ul style="list-style-type: none">Designed and engineered bicycle frames and components for all bicycle market segments from flagship triathlon racing bikes to lifestyle fashion cruisers, using Pro/ENGINEER.Received Red-Dot International Design Prize for outstanding product design (AR series).Selected for the International Design Award of the Federal Republic of Germany; only 25 nominations are selected from all industries.Developed new technologies; wrote and secured multiple patents (7,571,920; 7,607,507; 7,614,634; 7,775,331; 8,356,828; 7,946,605; 7,963,540; 7,976,045; 8,079,609)Designed for manufacture using processes ranging from hand laid carbon fiber to machined parts and welded hydro-form sheet metal assembly.Wrote, directed and contributed to production of catalogs, manuals, technical sales literature and video sales material.Attended industry events as technical liaison to pro-athletes, press, dealers, and consumers. In these videos I can be seen presenting some of my designs: http://www.youtube.com/playlist?list=FL8LSCpL-ltWGnXDqURNQC5wCollaborated with 3rd party suppliers to develop new components, processes and improve component quality.Fabricated prototypes for ride testing and trade show presentation.
2001-2002	Project Engineer AMETEK AEROSPACE , GULTON-STATHAM PRODUCTS Costa Mesa, CA, USA <ul style="list-style-type: none">Designed, constructed and tested new piezoelectric dynamic pressure sensor, to monitor flame noise in dry-low-NO_x type power generation gas turbines.Designed and certified pressure transducers for the Astrium Eurostar3000 satellite and for the International Space Station ATV (Automated Transport Vehicle).Developed and tested charge amplifiers to interface piezoelectric devices to data acquisition equipment.Designed 3D interface for GP7200 flight accelerometer used on the Airbus A380.Prepared technical proposals for CF34-10 flight accelerometer, and Moog spacecraft propulsion system pressure transducer.Provided engineering support to improve thin film pressure products with Six Sigma initiatives.

1999-2000	Process Research Consultant	<p>KESTREL SERVICES 2000 LIMITED (<i>through UW Swansea</i>) Swansea, Wales, UK</p> <ul style="list-style-type: none"> ▪ <i>Researched new technology addressing supply, mixing and dispensing of industrial coatings; to eliminate losses estimated at \$10billion per year.</i> ▪ <i>Devised and performed CFD simulations for pulsating, non-Newtonian, turbulent flows.</i> ▪ <i>Designed, constructed and conducted physical tests of prototype jet mixing devices.</i> ▪ <i>Planned further research, testing regimes, and future process protocol.</i>
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2000	CFD Consultant	<p>CONSULTATION FOR THE ENERGY GROUP, UNIVERSITY OF READING Swansea, Wales, UK</p> <ul style="list-style-type: none"> ▪ <i>Analysis of hydraulic flow through conical, full admission Turgo inlets for low head impulse turbine applications.</i>
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1999	CFD Consultant	<p>CONSULTATION FOR SUSTAINABLE ENERGY LIMITED Swansea, Wales, UK</p> <ul style="list-style-type: none"> ▪ <i>Assessment of flow around a Savonius water turbine for use in a tidal river estuary.</i>
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1997-1999	Service Manager	<p>SCHWINN/GT SALES UK LIMITED Cheltenham, England, UK</p> <ul style="list-style-type: none"> ▪ <i>Provided technical and race support for national help-lines (Rock-Shox suspension products, GT bicycles, Schwinn, and other major brands in the cycle industry).</i> ▪ <i>Implemented 5S reorganization of workshop procedures, improving work quality, productivity and staff morale to develop customer confidence in workshop service.</i> ▪ <i>Responsible for staff training, service promotions, inventory, hiring/firing, health and safety.</i>
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Education

1999-2001	Master of Philosophy in Mechanical Engineering	<p>UNIVERSITY OF WALES SWANSEA Swansea, Wales, UK</p> <ul style="list-style-type: none"> ▪ <i>Research Thesis: Jet Mixing of Non-Newtonian Fluids in a Cuboid Container; Industrial process investigation by numerical modeling and experiment.</i>
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1993-1997	Bachelor of Engineering with Honors in Mechanical Engineering	<p>UNIVERSITY OF WALES SWANSEA Swansea, Wales, UK</p> <ul style="list-style-type: none"> ▪ <i>IMechE Accredited Degree Program (UK equivalent of ASME)</i> <p>STATE UNIVERSITY OF NEW YORK AT BUFFALO Buffalo, NY, USA</p> <ul style="list-style-type: none"> ▪ <i>Year of ASME accredited undergraduate study in USA</i>
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1992-1993	BSc(hons) Engineering and Product Design Program	<p>UNIVERSITY OF CENTRAL ENGLAND, Birmingham, England, UK</p> <ul style="list-style-type: none"> ▪ <i>Studied industrial and graphic design at the Birmingham Institute of Art and Design, and Technology Innovation Center. Transferred after one year to University of Wales Swansea.</i>
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Computer Skills

<p>CAD/CAM/CAE:</p> <ul style="list-style-type: none"> ▪ <i>Over 12 years 3D CAD, surfacing and solid modeling experience using Pro/ENGINEER.</i> ▪ <i>Experienced in AutoCAD, SolidWorks; CFD modeling in StarCD, Fluent; Finite Element Modeling in Pro/MECHANICA, COSMOS/Works</i> ▪ <i>Taught drafting, AutoCAD, Pro/ENGINEER</i> <p>General:</p> <ul style="list-style-type: none"> ▪ <i>Detailed knowledge of Windows Environments; MS-Office, Excel, video editing, image processing, HTML, OS, network and hardware troubleshooting.</i>
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