

CURRICULUM VITAE

David Danfer B.Eng.

PERSONAL DETAILS

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		Nationality:	British
		Status:	Single, Non-Smoker.
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PROFILE SUMMARY

EDUCATION

- Solidworks – “Advanced Part Modelling” Approved Training Module (2013)
- Solidworks – “Essentials Drawing & Detailing” Approved Training Module (2007)
- Solidworks – “Essentials Parts & Assemblies” Approved Training Module (2007)
- Solidworks – “Drawings” Approved Training Module (2007)
- PTC ProEngineer Recognised Wildfire 2 Fast Track Course (2006)
- AutoCAD - National City & Guilds “2D” CAD Level 3 (2002)
- AutoCAD - National City & Guilds “3D” CAD Level 2 (2002)
- BEng Degree Aeronautical Engineering (1990)
- Successful transfer from HND to Degree Course (Top 8% of 125 students) (1987)

RECENT PROJECT SUMMARY (Design Draughting Package utilised, own licensed Solidworks Professional 2013)

- Generation of bespoke noise insulation shroud using Solidworks for high end automotive supplier (Pritex Ltd) (2014)
- Creation high end pressure vessel parts and assemblies to solid models from 2D data.(Stansted Fluid Power) (2014)
- Various rendering projects for individual objects or machinery for marketing purposes. (Lapmaster Ltd) (2013 / 2014)
- Proof models of 2D detailed drawings for bespoke segmented concrete stair for high end architect and concrete consultants.(2014)
- Structural skeletal frame models and detailing using Solidworks for bespoke architectural projects (Steel Innovation) (2013 / 2014)
- Modelling, detailing of bespoke carbon fibre wheelchair project from brief to production units. (Carbon Black Ltd) (2013 / 2014)
- Structural Glazing design and detailing using Solidworks for bespoke architectural projects. (Glazeguard) (2013 / 2014)
- Bespoke propeller development and mould tool design using 2 part compression moulding techniques. (2012)
- Various mould tool and pattern designs using Solidworks software for F1 composite supplier. (2012)
- CAD (Solidworks), development, detailing of bespoke spiral wrap machine for the automotive filter industry (2011)
- CAD (Solidworks), cradle to grave development, detailing of bespoke pick and place lapping machine for pump manufacturer (2012)
- Turnkey design solutions for Lapping and Polishing machinery, with ongoing product development. (2011/2012)
- Supporting Composite Design / Development with Carbon / Glass substrates on various projects and tool design. (2008-2010)

PERSONAL SKILLS & ATTRIBUTES

- AS9100 Design & Development Validation and Verification Process Requirements.
- Design / Process Failure Mode Element Analysis (DFMEA & PFMEA)
- Drawing Practice and Drawing Office Management Practice to BS8888, formerly BS308.
- Practical Approach to Engineering Problem Solving.
- Familiarity of ISO9000 / AS9100 & Principles of GD & T.
- Competent Knowledge of Personal Computers and their software. Introduction to Solidworks PDM Works
- Technical Manual Preparation.
- Customer / Supplier Liaison
- Excellent Planning/Organisational Skills
- Exceptional Eye for Detail, Self Motivated/Disciplined
- Accept Responsibility And Enjoy A Challenge.
- Meticulous, Whilst Keeping Deadlines.
- Flexible, Determined, Enthusiastic & Imaginative
- Adapt Positively Under Pressure To Achieve Tight Deadlines.
- Current Full Passport & Clean Full Driving Licence.

ACHIEVEMENTS

- Oversee / implement "cradle to grave" design engineering solutions on adaptations of standard lapping and polishing machinery.
- Re-design of high end wheelchair for manufacture in composite inc mechanical interfaces. Carbon Black System Ltd.
- Recent design of bespoke machines using servo drive motors for lead screw linear systems, pneumatics, belt and chain drive, electronic actuators.
- Further advancement of Solidworks Software (mould tool design, split surfaces, surface repair and creation)
- Successfully completed Solidworks “Essentials” training modules.
- Venture into a Self Employed role as CAD Design / Development Engineer.
- Successfully Completed PTC - ProEngineer Wildfire 2 Fast Track Course (1 Week Full Time Residential)
- Successfully completed AlphaCAM, CAD to CNC translation software course. (Harris Cox)
- Promoted To Engineering Manager (On Leaving Wellman Peters)
- Transferred To Second Year Degree In Aeronautical Engineering After Being In Top 8% Of HND 1st Year Students.

EDUCATION AND QUALIFICATIONS

2013 – Solid Solutions - Solidworks Professional 2013

Successfully Completed Solidworks Professional 2013 “Advanced Part Modelling” Module (2 day residential)

2007 – Solid Solutions - Solidworks Professional 2007

Successfully Completed Solidworks Professional 2007 “Essentials” Course (1 Week Full Time Residential)

2006 – Optima Design - PTC ProENGINEER 3D Full Parametric CAD

February – Successfully Completed PTC Recognised ProEngineer Wildfire 2 Fast Track Course (1 Week Full Time Residential)

2002 - PLYMOUTH COLLEGE OF FURTHER EDUCATION

March – City & Guilds “2D” CAD Level 3 (AutoCAD)

June – City & Guilds “3D” CAD Level 2 (AutoCAD)

1986→1990 - HERTFORDSHIRE UNIVERSITY (Formerly HATFIELD POLYTECHNIC)

1st Year B/TEC HND in Mechanical Engineering (with Aero Option).

Accepted offer to transfer onto second year of BEng Honours Degree in Mech/Aero Engineering; after being placed in the top 8% of 125 students, after final 1st year HND exams.

Awarded, Bachelor of Engineering Degree in AERONAUTICAL ENGINEERING

1984→1986 - HARLOW COLLEGE

B/TEC Ordinary National Diploma in Technology - Overall Assessment Mark = 676/1000

1981→1984 - SAFFRON WALDEN COUNTY HIGH SCHOOL

GCE "O" Levels: - Mathematics - English Language – Chemistry, Technology - History

CAREER HISTORY

MAY 2008 → PRESENT;

Self Employed CAD Design/Development Engineer as a Director of Caddology Ltd & David Danfer T/A CAD & Design Services

Most recent contracts include;

Carbon Black System Ltd - August 2013 to Current

My involvement with this project is from initial concept to the first production unit. Private individual Andrew Slorance and investors required someone to aid them to take their high end composite wheelchair to market from a basic prototype and limited information. I am working closely with Andrew to take his design input and ideas into CAD (Solidworks) and create a form and design where although the chair is a monocoque design it can be moulded, trimmed and manufactured to a custom size. I am supporting the chair manufacturer to provide tooling/pattern design for all composite parts. I have aided Andrew to take his ideas on various mechanical parts of the chair and have created design solutions (i.e. brakes, hubs, axles, backrest support/slides). Managing the main supply chain of all mechanical parts has also been part of my role. The chair has been designed and built to pass a TUV durability test, from a Swedish test house. The chair passed this test. We are still developing the chair in certain ways to create more options and am currently looking at the ability to attach an off the shelf electric drive unit.

Lapmaster International Ltd - August 2010 to October 2013

My main role at Lapmaster was to aid and support their technical / design team. Having to learn their internal processes and systems to follow their correct internal procedures. This included generating part numbers, BOM's and having high access to their MRP system. Lapmaster wanted an individual who was flexible and could use Solidworks. Their core business was to create bespoke machines to lap and polish parts of a certain, size, weight and material. I was involved in taking two machines from concept to delivery. Once I had a design, drawings and a structured BOM, I would also have direct contact with key suppliers to ensure they had a full remit on what was required. Due to the bespoke nature of the project, it was vital to have a direct control, at every stage, to ensure parts/assemblies mated together and gave the desired solution. On these bespoke projects there was no real time to develop/test so an extra eye for detail was paramount to avoid costly errors. As part of the team I furthered my experience on creating design solutions using, servo motor & drives, linear guides and slides, ball screws, belt and chain drives, electric motors, electric and pneumatic actuators, peristaltic pump technology and bespoke design solutions using an array of standard mechanical parts. I was also involved with day to day troubleshooting from BOM and drawing queries for standard products. Using my experience with Solidworks I produced photo-realistic renderings of their standard machines to use on brochures, literature and their website.

C2 Composites (Now Rockwood Composites) - July 2008 to July 2010

During my contract with C2 Composites I was closely involved with numerous projects where the parts were mainly manufactured using the two part compression mould tool process. The core of the business supplied a large aerospace interior supplier in America with aircraft cabin mouldings for Boeing and Airbus. These parts were generally glass epoxy/phenolic resin prepreg structures with a foam core. As part of the team I was involved using Solidworks to design the two-part compression mould tools in tool grade aluminium. Working with the MD of the company I supported him directly with more bespoke engineering projects using carbon fibre for MOD establishments, GE and British Aerospace Systems. These projects ranged from developing a carbon composite torsion spring, fairings for weapon systems, suspension straps for the magnet in an MRI scanner. Some of these projects were internally managed using AS9100, with full DFMEA,PFMEA and validation and verification processes. As well as providing CAD expertise, I also provided valuable assistance across the whole business as a team player. For example, I would work closely with the CNC machinists and shop floor personnel to ensure we got the ultimate solution at each relevant stage of the project. One project I managed, was to develop a lighter weight version of a airline bi-fold business class meal table. The traditional aluminium construction was replaced by a high end injection moulded polymer to ensure strength and stiffness were maintained. Research into using a "dough-moulding" process in composite was undertaken and simple tooling was created to prove the process as part of the project, albeit we decided to move to injection moulding and change the material. The table completed a full dynamic and static test programme to validate the product. The table was also chosen as an entry for the Crystal Cabin Awards in Hamburg in 2010 and gained a top 10 place from 150 entrants.

MAY 2007 → APRIL 2008; Self Employed CAD Design/Development Engineer.

Position - Principal of own business, offering CAD, engineering development services, covering;

- Design & Development Gas Turbine Engine Temperature Sensor Vibration Test, Fixture.(Hampshire)
- Design & Development Precision Tack Welding Fixture for holding Engine Sensor.(Hampshire)
- Develop & Detail & 3D Solid Model Precision Tool Holder.(Devon)
- Design & Develop complete Display Fixture. (Devon)
- Design & Development Of KD Fabricated Tubular Steel Fixtures. (Devon)

OCTOBER 2002 → APRIL 2007 HARRIS COX LTD, DEVON - Position, Development Manager (started as Project Manager)

- Design, Developed & Project Managed, volume steel fabricated fixtures.
- Managed technical aspects of Chinese supply chain and assessed manufacturing resources out in China. Visited three times.
- Re-Developed and engineered product to help streamline assembly and logistics.
- Successfully completed training on CNC machines and Involved with off line programming.
- Project Managed bespoke products for clients.
- Design & Development of new fixtures / components using **AutoCAD 3D** and **PTC Wildfire 2, 3D CAD**.
- Technical liaison with suppliers to ensure JIT provides technically correct parts.
- Implemented document and drawing control management.
- Implementation, and ongoing management, of Design Change Request Process.
- Designed, developed and produced fixtures and fittings for large retail outlets including New Look, Burtons, Dorothy Perkins, Hawkshead, Principles, Superdrug, Safeway and Royal Botanical Gardens - Wakehurst.
- Production of POS (Point Of Sale) Counters, VM (Visual Merchandising), Cash Desks, Shelving, Bespoke Display units.

DECEMBER 1997 → OCTOBER 2002 STAVERTON LTD, DEVON (Company became insolvent) - Position, Technical Manager

- Responsible for four engineers, promoting team building, setting clear objectives.
- Developed modular furniture system using interlocking aluminium castings and extrusions
- Successfully completed two week residential training on new 4-Axis CNC machine, including CAM software, in Germany.
- Project Managed/ Developed - four large contracts - Contract Size = to £1.5 Million Each.
- Project Managed - Methodology for improving direct CAD/CNC link for furniture panel manufacture.
- Implemented Document & Drawing Control Management structure and procedures.
- Developed CAD software for converting space planned furniture into a detailed B.O.M.
- Developed fast track process for engineering bespoke designs to £400k per week.
- Implementation, and ongoing management, of Design Change Request Process.
- As a continual improvement programme, five individual furniture ranges had the following action:-
 - I. Catalogued
 - II. Recognition/Operating Instruction Manual
 - III. Part Numbered at all levels
 - IV. Entered into MRP system and BOM's constructed.
 - V. All Drawings were created, Labelled & Given Issue Status.

JULY 1994→DECEMBER 1997; WELLMAN PETERS, ESSEX. - Position, Applications Engineer

- Promoted To Engineering Manager (On Leaving)
- Design and engineered improvements and manufacturing process development of Emergency Rear Coach Door,
- Project Manager of new coach door product range. (Lead to increase in company turnover by18%.)
- Wrote/Implemented procedures for ISO9001; Leading to company certification.
- Completed AutoCAD R13 update course.
- Implemented structured Design and Development Procedure into department.
- Implemented document and drawing control management.
- Implementation, and ongoing management, of Design Change Request Process.

INTERESTS & ACTIVITIES

- Motor Racing
- Tennis
- Keep Fit
- Family
- Cycling

Further Information Available On Request.