
BRUCE WEBSTER

SUMMARY OF BRUCE'S ACHIEVEMENTS

- 25+ years of Engineering focused career to innovate and implement best in class product development processes and product innovation projects.
- Proven Engineering leader and entrepreneur with broad holistic viewpoint.
- Team player paying attention to maximizing team results and loyalty.
- Engineering project leadership examples - innovative wind and water green energy devices, aero-acoustic projects for rotating fluid devices (engine cooling fans and lawn mowers), agricultural splitter device for seed delivery, automotive headlamp defogging, automotive hvac and other climate control engineering attributes, rotorcraft technology.

EXPERIENCE

1. **NOVUS NEXUS, INC. NORTHVILLE, MICHIGAN** **1/10 – Present**
CEO/PRESIDENT
CAE Software and services company startup for CAE Nexus product line including Fluid Nexus, the next generation abstract modelling CAE pre/post processor for CFD. Development staff in Pune, India. Current customers include John Deere, Visteon and Whirlpool.
PIONEERSOLUTIONS & MSC.SOFTWARE **8/05 – 10/09**
MSC.SOFTWARE, ANN ARBOR, MICHIGAN **8/07 – 10/09**
Software and services company (headquartered in Santa Ana, CA) active in various fields of multi-disciplinary engineering simulations. Major markets include auto, aero, heavy industry, government and defense. In August 2007, MSC acquired all shares of PioneerSolutions and hired the team.

Sr. Director, CFD and Abstract Modelling
Responsible for product development of FluidConnection.

Accomplishments:
 - One major and one minor releases of FluidConnection with great feedback from customers.
 - Integrate FluidConnection with SimManager.
 - Successfully build, develop and lead 6 member development team in Pune, India.
 - Maintain CFD core competency added knowledge for headlamp defogging simulations.
PIONEERSOLUTIONS, INC., NORTHVILLE, MICHIGAN **8/05 – 8/07**
Start-up software and services company (headquartered in Northville, MI) active in automating CFD simulation processes. Customers in the auto, heavy industry and consumer goods industry. SBD engineering services and high performance computing services.

CEO and Co-Owner
Responsible for executive leadership working with President on all business development, product development coordination and strategies for company funding/exit strategy and responsible for all product development and engineering services.

Accomplishments:
 - Instrumental in defining product specification and coordinating development with 3rd party services provider for successful release in 2007.

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- Nurtured ecosystem of three major customers to help fund and guide product development.
- First to market with SBD abstract modeling CFD preprocessor.
- Together with President successfully negotiated the sale of the company to MSC.Software.
- Pioneer of CAE automation using data template/abstract modeling.
- Expert in automotive/heavy equipment CFD and wind/water energy CFD simulations.
- Consulted with CoMeT Solutions to enable them to have abstract modeling in their product.

2. **SIMMETRIX , CLIFTON PARK, NY 1/97 – 8/05**

Is a leading supplier of tools and techniques for Simulation Based Design, incorporating advanced engineering analysis into the engineering design process (www.simmetrix.com).

VP of Engineering Services and Founder.

Co-Invented and Co-Developed Simulation Based Design (SBD) paradigm applied to thermal/flow (CFD) simulations in partnership with Ford, Visteon, John Deere and Whirlpool. These engineering services engagements resulted in CAE automation advancements. Most notably the development of engineering Product Development (PD) organizational changes, software and hardware infrastructure and management, personnel roles (PD management, designers, engineers and CAE analysts) using “lean” manufacturing principles. Created real world best PD practices that deliver the promise of virtual testing via intelligent use of CAD and CAE (that uses abstract modeling).

3. **SBDS (SIMULATION BASED DESIGN SYSTEMS), INC., FENTON, MI 5/95 – 12/96**

Consulting for Ford Motor Company to develop CFD simulation based design vertical applications using Lisp based Knowledge Based Engineering modelling language.

4. **CENTRIC ENGINEERING SYSTEMS, INC., PALOALTO, CA 1/93 – 4/95**

Venture Capital funded CAE software company offering a combination of academic codes from Stanford and Berkley for CFD and FEA into market as first multi-physics FEA code.

Manager of Modelling and Mesh Generation

Successfully funded the development of industry first Simulation Based Design Systems via engineering contracts with Ford Motor Company and SBIR contracts.

5. **KAMAN SCIENCES, BURLINGTON, MA 1/83 – 8/88**

CAE simulation software and services for military vehicle response to nuclear, laser and other advanced weapons. Heritage comes from Aeroelastic Lab at MIT.

CAE Engineer

Responsible for maintaining and enhancing nuclear blast Fortran code of rotorcraft vehicles. Responsible for proposals and performing engineering services to military agencies to compute nuclear blast vulnerability envelopes of rotorcraft as principle investigator. Employee of the year award 1987.

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6. BROWNE & SHARPE, KINGSTON, RI

5/81 – 12/82

Machine Tool Manufacturer with screw machines, vertical CNC machines, CNC grinders, micrometers, etc.

ENGINEERING TRAINEE

Participated in a 18 month rotation program working in all departments of product manufacturing from tool & die, heat treatment, machine operator, assembly, drafting, R&D. Participated in using FEA and modal analysis digital equipment for the first time in company history. During a historic union strike, work on the assembly line for 6 months building for shipment vertical CNC machines.

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EDUCATION

- Education:
- 1980 BSME, WPI, Worcester, MA
- 1986-88 - Three grad classes at MIT, Cambridge, MA
- 1988 MSME, WPI, Worcester, MA
- 1992 Ph.D., Aeronautical Engineering, RPI, Troy, NY
 - Army Research Office Scholarship 4+ years
 - Vertical Flight Foundation Scholarship 3 years

LANGUAGES

- English - mother language
- German – rudimentary working knowledge