

Mark G. F. Catherall

mark@catherallconsulting.com

Summary

- Graduated from Oxford with a first in Engineering Science.
- Vehicle Dynamicist at McLaren F1 team for two and half years.
- Studying for DPhil in biomedical engineering at Oxford.
- Commissioned by Ferrari F1 team as an independent consultant.
- Established Catherall Consulting Ltd., providing consultancy services in modelling, simulation and optimization.

Abilities

- Superb analytical and problem solving skills, proven through years of industry leading work.
- Excellent numerical abilities, established by academic record and validated in the workplace.
- Knowledge and experience of a wealth of engineering and mathematical techniques and their applications in business.
- Expert capabilities in designing and implementing complex tools and simulations in MATLAB with customized user interfaces.

Professional Experience

2012–present	Director, Catherall Consulting Ltd. Catherall Consulting Ltd., established May 2012, provides consultancy services in modelling, simulation and optimization. Extensive analysis and problem-solving skills applied to businesses wishing to gain a competitive advantage.
2011–present	Independent Consultant, Ferrari S.p.A. Commissioned to run two simulation projects and one strategy project. Worked both remotely and on-site to design and implement complex simulations and strategy tools.
2008–2010	Vehicle Dynamics Engineer, McLaren Racing Ltd. Part of Simulation Development team within Vehicle Dynamics department. Developed new simulation capabilities, designed and built analysis and optimization tools for aerodynamicists and race engineers, analysed competitor performance. Proven strong ability as team member and as project leader in fast-paced, time-critical and technically demanding environment. Wrote and delivered introductory course in MATLAB for aerodynamicists.

- 2007 | **Intern, QinetiQ Group plc**
Five week internship at QinetiQ. Developed novel vibration analysis techniques that revealed significant potential in vibration monitoring of engines for fast jets.
- 2006 | **Intern, P2i Ltd.**
Six week internship at P2i plasma surface coating. Designed built and tested a temperature controlled monomer delivery system and a chilled mirror hygrometer. Carried out quality control tests and designed experiments to characterize the unique surface treatment.

Education

- 2010–present | **DPhil Candidate, University of Oxford**
Studying for a DPhil in Biomedical Engineering. Investigating the role of nitric oxide in regulating the blood-flow in the brain. Constructed the first realistic mathematical model of an arteriole that replicates autoregulation of blood flow.
- 2003–2007 | **MEng, Engineering Science, University of Oxford**
First Class honours.
Academic scholarship awarded following distinction in Preliminary Examinations.
Outstanding Project In Biomedical Engineering Prize awarded for fourth year project. This work was presented at the *Brain '07* conference in Osaka and has since been published in the journal *Microcirculation*.
- 1996–2003 | **Hampton School**
A-Levels: Mathematics, Further Mathematics, Physics, and Chemistry (all grade A).
AS-Level: Economics (A).

Other Achievements

- 2012 | **Skipper of racing yacht** for Round the Island Race, Dartmouth Regatta and over 500nM of training and delivery trips around the south coast with a crew of seven.
- 2010 | **Ironman UK finisher**; completed a 2.4mile swim, followed by a 112mile cycle, followed by a marathon in 13hrs 20min and 42s.
- 2007–2008 | **Ski instructor**, Whistler BC, Canada; teaching local children to ski.
- 2004–2007 | **Captain, and then President, of University College Boat Club**; position on the river elevated from 14th to 5th during my tenure.