Dr. Atrash Mohsin

atrashmohsin@gmail.com +41772657736 Zurich, Switzerland Driving Licence: B

Unbeschränkte Arbeitsbewilligung in der Schweiz (Full Eligibility to Work in CH)

PROFILE

Multilingual, interdisciplinary engineer with over 10 years of experience in R&D, specialising in innovative problem-solving and project management across technical sectors. Proven ability to manage complex projects, technical documentation, and quality assurance in industries such as motorsport (F1), automotive, aerospace, and energy. Eager to apply my analytical and process optimisation skills to drive operational efficiency and innovation in a dynamic financial environment.

PROFESSIONAL EXPERIENCE

09.2023 – present
Zurich, Switzerland

Senior Structural Engineer ¦ Project Manager, *Sauber Motorsport AG*
- Led the design, analysis, and optimisation of F1 car components, focusing on structural integrity, weight, and performance compliance.
- Managed cross-functional R&D projects, overseeing timelines, budgets, and team resources.
- Integrated structural components with aerodynamic elements, ensuring technical compliance with industry-specific regulations and design control protocols.

08.2021 – 08.2023
Zurich, Switzerland

Principal Scientist ¦ Lead Development Engineer, *Empa (with Carbo-Link AG)*
- Spearheaded the development of advanced composite materials for energy-efficient civil structures, focusing on thermoplastics and composite anchorage systems.
- Led R&D teams in designing and testing novel composite materials.
- Collaborated with interdisciplinary teams to innovate applications in composite engineering, aligning with safety and energy-efficiency regulations.

11.2019 – 08.2021
Cambridge,
United Kingdom

Senior Scientist, *Schlumberger*
- Developed dynamic FEA models for drilling applications, contributing to energy-efficient and regulatory-compliant processes.
- Contributed to the company's intellectual property by filing patents on novel engineering solutions, particularly in material applications.
- Prepared and reviewed technical documentation to support global product deployment, ensuring compliance with international standards.

11.2018 – 09.2019
Aberdeen,
United Kingdom

Research Engineer, *TechnipFMC / University of Aberdeen*
- Designed and developed subsea load-bearing connectors, ensuring compliance with deep-sea industry regulations.
- Managed testing protocols, including thermal and cyclic testing, to meet safety and technical compliance standards.

10.2014 – 09.2018
London,
United Kingdom

Doctoral Researcher / Graduate Teaching Assistant, *Imperial College London*
- Developed innovative experimental and numerical models for composite materials, contributing to advancements in automotive and aerospace sectors.
- Conducted technical presentations and prepared documentation in line with regulatory requirements.

07.2016 – 10.2016
West Lafayette, IN,
USA

Research Associate, *Purdue University*
- Designed high-velocity impact tests for thermoplastic composites in aerospace and defence

07.2015 – 08.2015
Daejeon,
South Korea

Research Assistant, *KAIST*
- Characterised the mechanical behaviour of polymer nanocomposites for automotive applications

EDUCATION

10.2014 – 09.2018 London, United Kingdom	**Imperial College London,** *PhD in Aeronautical Engineering* Thesis: Manufacturing, testing, modelling and failure analysis of composites for automotive and aerospace applications
09.2013 – 09.2014 London, United Kingdom	**University College London (UCL),** *MSc in Mechanical Engineering* Thesis: Computational fluid dynamics of F1 cars—a study of the evolution of drag and downforce in F1 since the 1950's
09.2010 – 05.2013 Nottingham, United Kingdom	**University of Nottingham,** *BEng (1st Class Hons) in Mechanical Engineering* Thesis: Mathematical modelling of bridge dynamics—a study of nonlinear response of pedestrian induced lateral vibrations of the Millenium bridge, London
02.2009 – 01.2010 Melbourne, Australia	**University of Melbourne,** *BEng (Hons) in Mechanical Engineering (1st Year)* Completed the first year of mechanical engineering with 80% average

KEY ACHIEVEMENTS

- **Led and developed multidisciplinary teams:** Managed cross-functional teams of engineers and scientists across motorsport, civil, and energy sectors, ensuring successful delivery of complex R&D projects.
- **Drove innovation in material technologies:** Spearheaded the development of advanced composite materials, contributing towards product innovation in automotive and construction.
- **Optimised processes and resources:** Led the design, analysis, and testing of materials and components, ensuring alignment with industry standards, safety regulations, and project goals

SKILLS

Regulatory Compliance — Experience in design control, validation protocols, and technical documentation for regulated industries., **Mutidisciplinary Engineering** — *Design, manufacturing, testing, analysis of devices, materials and structures*, **Programming / Data analysis** — *MATLAB, Python, Fortran*, **FEA** — *LS-Dyna, Abaqus, HyperMesh, Optistruct, ANSYS*, **CAD** — *SolidWorks, Creo, Inventor, AutoCAD, CATIA*, **CFD** — *Star-CCM+*, **Office** — *MS Office, MS Project, LateX*

LANGUAGES

English — *C2* | **Spanish** — *C1* | **German** — *B2* | **Portuguese** — *A2* | **Malay** — *C2* | **French** — *A1*

PUBLICATIONS

Nine (9) scientific publications across world-leading (Q1) journals and international conferences in mechanical and materials engineering research.
—List is available upon request.

AWARDS

Performed by SLB Bronze Award, *Schlumberger*
Awarded for innovative work on novel predictive tool for drillbit performance

Full PhD Scholarship, *Imperial College London*

Full MSc Scholarship, *University College London (UCL)*

Dean's Excellence Scholarship, *University of Nottingham*

REFERENCES

Available upon request