

# OMAR SAIF

Mechanical Engineer with three years of experience in mechanical design, manufacturing and numerical modeling. Certified associate designer with 200+ individual design and development projects between two different companies. Currently seeking a PhD position in mechanical engineering.

 omarsaifabir@gmail.com

 [omarsaifme.github.io](https://omarsaifme.github.io)

Work Experience	Research Associate <i>Participatory Management ID</i> • Data Analyst • Field Research Correspondent	Dhaka, BD   Apr, 2024 – June, 2025
	<b>Sr. Deputy Assistant Director</b> <i>Walton Hi-Tech Industries PLC</i> • Structural Designer, VRF Outdoor Units • Model Manager, FCU and ERV Units • Fair and Exhibition Coordinator	Dhaka, BD   Oct, 2021 – May, 2022
	<b>Jr. Mechanical Engineer</b> <i>Brightbirds Bedrijfsbureau (NL)</i> • Designer, Heavy Machineries and Accessories • Research Assistant	Dhaka, BD   May, 2019 – Sep, 2021
Technical Skills	<b>Mechanical Design and Analysis</b> • SolidWorks • Autodesk Inventor • AutoCAD • ANSYS	<b>Miscellaneous</b> • Python • Keyshot • FARO Scene • C++
Notable Project	<b>Reverse Engineering of Legacy Pipe-Bending Die using Point-Cloud Data [Brightbirds Bedrijfsbureau]</b> • Led the digital reconstruction of a 25-year-old pipe-bending die with no existing CAD model, preventing major production downtime and replacement costs • Proposed and implemented LiDAR scanning (Leica BLK360) to capture broken die geometry, pioneering point-cloud-based reverse engineering at the facility • Developed a hybrid workflow using Meshmixer, Fusion 360, and Autodesk Inventor to process and reconstruct high-density scan data into manufacturable 3D models. • Overcame incomplete and damaged geometry through creative parametric modeling and multi-software data stitching. • Delivered a validated digital blueprint that restored full production capability and established a reusable workflow for future legacy-part reconstructions. • Saved the company several thousand euros in replacement and downtime costs	Dhaka, BD   2021
Education	<b>Bachelor of Science in Mechanical Engineering</b> <i>Ahsanullah University of Science and Technology</i> <u>Majors Included</u> – Fluid Mechanics, Machine Design, Composites, Thermodynamics, Mechatronics, Heat and Mass Transfer, Numerical Analysis.	Dhaka, BD   2013 – 2019
	<b>Higher Secondary School Certificate</b> Notre Dame College <u>Major</u> – Science	Dhaka, BD   2010 – 2012

**Secondary School Certificate**  
Dhaka Residential Model College  
Major – Science

Dhaka, BD | 2008 – 2010

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<b>Undergraduate Thesis</b>	<b>Comparison of Lift &amp; Drag of Different Bird Wings by Numerical Analysis</b>	Dhaka, BD   2018 – 2019
<ul style="list-style-type: none"><li>Conducted CFD analysis comparing bio-inspired and conventional straight wings across multiple angles of attack</li><li>Evaluated lift, drag, and other parameters to assess aerodynamic efficiency</li><li>Found bio-inspired design offered higher lift and better high-angle performance, highlighting applications in maneuverability</li></ul>		
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<b>Notable Certificates</b>	<b>Certified SolidWorks Associate, Mechanical Design</b> <i>Dassault Systems</i>	Jul, 2021
	<b>Innovation through Design: Think, Make, Break, Repeat</b> <i>The University of Sydney</i>	Jan, 2021
	<b>Python for Beginners</b> <i>Udemy Academy</i>	Feb, 2021
	<b>Flow over an Airfoil</b> <i>ANSYS</i>	Dec, 2023

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### Hobbies



Books



Chess



e-Sport



Photography