



Mahmoud Zidan

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EDUCATION	The Technical University of Munich , Munich, Germany 11.2019 MSc, Computational Mechanics Main Focus: <i>Computational Modeling</i> Graduated with Distinction (Grade: 1,4) Advisors: Prof. Dr.-Ing. Kai-Uwe Bletzinger and Klaus Bernd Sautter, M.Sc. Kuwait University , Kuwait 05.2017 BSc, Civil Engineering , Main Focus: <i>Structural Analysis and Design</i> Graduated with Distinction with Class Honor (1 st on class) Advisor: Prof. Humayun R. H. Kabir ✉
WORK EXPERIENCE	Graduate Research Assistant , <i>Munich, Germany</i> 05.2020 - 06.2021 Associate Professorship of Computational Mechanics Research project: Multi-fidelity robust design optimization using intrusive non-linear Model Order Reduction Python C++ Git LSDyna Graduate Student Assistant , <i>Munich, Germany</i> 05.2019 - 08.2019 Hydromechanics Chair – Technical University of Munich Co-tutoring for the Computational Fluid Dynamics Lab. Matlab Git Graduate Student Assistant , <i>Munich, Germany</i> 05.2018 – 03.2019 Structural Analysis Chair – Technical University of Munich Development of Python tools with graphical user interfaces for the courses Theory of Plates and Non-Linear Finite Elements. Python Git CI/CD Docker GUI/PyQt5 UnitTests Construction Site Engineering Intern , <i>Kuwait</i> 07.2016 – 09.2016 Combined Group Contracting Company Carried out quantity surveying, shop drawings, and design checks in between two construction sites AutoCAD STAAD.PRO
AWARDS	Graduation with Class Honour , (BSc) 06.2017 Graduated with a GPA of <i>3.94/4.00</i> Attained a scholarship, Kuwait University 09.2013 – 06.2017 The Scholarship of The Minister of Education, <i>Kuwait</i>

COMPUTER SKILLS	Python	●●●●●	Matlab	●●●●●	C++	●●●●●
	Java	●●●●●	SQL	●●●●●	TypeScript	●●●●●
	Bash	●●●●●	Git	●●●●●		
	Databases: SQLite, MySQL					
	Others: Linux OS, LaTeX, InkScape, XML, Docker, Kanban					
ENGINEERING SKILLS	Structural Analysis and Design	●●●●●				
	Finite Element Analysis	●●●●●				
	Computational Fluid Dynamics	●●●●●				
	Fluid-Structure Interaction	●●●●●				
VOCATIONAL EDUCATION	LS-Dyna Course					08.2018
	<i>Explicit FEM</i>					
	Autodesk Revit: Structural Course					06.2017
	<i>Structural Modeling</i>					
	Autodesk Revit: Architectural Course					08.2016
	<i>Architectural Modeling</i>					
	ETABs & SAFE Course					03.2016
	<i>Structural Design</i>					
PROJECTS	Please refer to zidanmahmoud.github.io for reports and more details					
	Flexibility-Based Fiber Beam-Column Element to Model Reinforced Concrete Under Seismic Loading, <i>Master Thesis</i>					11.2019
	C++17	Python	Git	Non-linear FEM	Material Modeling	
	Immersed Boundary pisoFoam Solver, <i>Master Thesis</i>					11.2019
	OpenFOAM	C++	ParaView			
	Structural Wind Analysis of The High-Rise Building 1180 Peachtree Using The Eurocode Standard and CFD Simulations					03.2019
	Python	ParaView	Wind Analysis			
	Space-Time Finite Elements For 1D Heat Equation					11.2018
	Python	Git				
	Implementation of Trimmed Isogeometric Analysis for Membrane Structures					08.2018
LANGUAGES	Matlab	Git				
	Arabic:	Native proficiency				
	English:	Professional working proficiency (IELTS Overall: 7.5)				
	German:	Intermediate proficiency (B1 Level)				