

Mohamed Moustafa

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EDUCATION

Bachelor of Science in Aerospace Engineering
Wichita State University, Wichita, KS

Expected May 2018
Dean's Honor Roll, 3.67 GPA

Bachelor of Science in Physics, Minor in Mathematics
Emporia State University, Emporia, KS

May 2017
Presidential Scholar, Cum Laude

Artificial Intelligence for Robotics: *Programming a Self-Driving Car*
Udacity, Online Course

April 2013
Completed, Highest Distinction

PROFESSIONAL EXPERIENCE

Research Assistant
Department of Aerospace Engineering, Wichita State University, KS

Jan. 2017 - Present

- Developed adaptive controls models for predicting future-time aircraft loss of control and implemented pilot-warning instruments using the Google Glass and Microsoft HoloLens augmented reality devices in Java and C#.
- Performed research on machine learning of quantum systems for NASA's D-Wave quantum computer and created novel implementations of real and complex-valued neural networks using Python and Matlab.

Independent Full-Stack Web Developer

June 2011 - Present

- Designed and built high-performance production web applications and solutions using HTML5/CSS, JavaScript (Node.js, Angular, jQuery), PHP, C++, RESTful APIs and cloud SaaS for professional clients and organizations.
- Trained 2-4 member development teams, managed distributed source and version control systems, administered MySQL databases and oversaw day-to-day Linux server operations.

Graphic Designer
Center for Student Involvement, Emporia State University, KS

Feb. 2014 - Jan. 2016

- Designed identities and promotional materials for 6 sub-offices, including logos, flyers, posters, brochures and digital media with Adobe Photoshop, Illustrator and InDesign.

RELEVANT EXPERIENCE

Stanford University Innovation Fellow

Jan. 2017 - Present

Selected to participate in—and completed—training program on entrepreneurship, creative confidence, and design thinking through Stanford's D-School. Worked with Wichita State faculty and administration to develop innovative spaces, host experiential events, and advocate institutional modernization.

Copenhagen Suborbitals Reentry Analysis

Feb. 2017 - Present

Organized a student team to conduct aerodynamic drag and stability analysis for a supersonic reentry capsule as part of design review for the Denmark-based space company.

NASA Student Launch Competition

Aug. 2017 - Present

Lead first-ever Wichita State team to design, build, test and fly a high-powered rocket for the NASA competition modeled around the administration's project engineering and design lifecycle.

PUBLICATIONS

Behrman, E.C., J.E. Steck, and M.A. Moustafa. "Learning Quantum Annealing." *Quantum Information and Computation*, Vol.17, No. 6, May 2017.