

HALA AL-KHALIL

alkhalil@stanford.edu • [linkedin.com/in/halaalkhalil](https://www.linkedin.com/in/halaalkhalil) • (860) 816 - 5148

EDUCATION

- 9/15-3/17 **Stanford University**, Stanford, CA - M.S. *Mechanical Engineering*
Design, Dynamics, and Controls – GPA: 3.6
- 9/11-5/15 **University of Hartford**, West Hartford, CT - Dual B.S. *Mechanical Engineering, Electrical Engineering*
with a Concentration in *Energy and Sustainability*, and a minor in *Mathematics* - GPA: 3.93
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SKILLS

Siemens NX, AutoCAD & Inventor, Vault, SAP NetWeaver, COMSOL, CodeWarrior, MATLAB/Simulink, Xilinx ISE, PSpice;
Technical: nonlinear controls design; Languages: English and Arabic (reading, writing, and conversational)

EXPERIENCE

- 5/15-8/15 **Rotational Engineer**, *Hubbell Incorporated*, Shelton, CT
- Created new design solutions following customer complaints and special requests with the product development team
 - Modified designs on Siemens NX, AutoCAD, & Autodesk Inventor for existing and new company parts
 - Created and documented engineering changes for new projects and orders through SAP and Vault
 - Recovered corrupted and old design CAD files as the company was transitioning to a new filing system
- 1/15 **Engineering Intern**, *Arabtech Jardaneh Architecture & Planning*, Amman, Jordan
- Worked on the ST. Regis Hotel project (a Starwood's main luxury brand) on inspecting and supervising contractors' HVAC (chiller's, FCU's, AHU's) work carried out on site. Inspected part inventory and materials submittals.
 - Revised engineering drawings submitted by design contractors to verify its validity following national standards.
- 5/14-8/15 **Engineering Intern (R&D)**, *Hubbell Incorporated*, Shelton, CT
- Worked on a receptacle terminal design for a product and evaluated it using Finite Element Analysis.
 - Tested Hubbell's globally manufactured cables for transmission performance and verified it follows TIA standards
 - Created project engineering changes documentations. Worked with PADS program to modify PCB designs.
 - Developed the design of a small vacuum chamber to create an in-house testing unit to evaluate cables performance at high altitude and monitor its temperature rise. Generated testing data for new cable standards.
- 7/13-8/13 **Engineering Intern**, *King Abdullah II Design & Development Bureau* (independent government defense and automotive design entity - Jordan Armed Forces), Amman, Jordan
- Assisting in creating 3D models for automotive mechanical parts and reverse engineering projects
 - Participated in automotive mechanical design implementation and gained exposure to final design testing process
- 7/13-8/13 **HVAC Design Intern**, *Engicon* (multidisciplinary consulting engineering firm), Amman, Jordan
- Assisted in designing, using AutoCAD, the drainage and water supply piping for HVAC systems of a hotel following the Jordanian national codes. Created bill of materials for final designs of several projects.
- 10/11-5/15 **Administrative Intern, Teaching Assistant, Undergraduate Tutor**, *University of Hartford*, West Hartford, CT
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PROJECTS

- 9/15-present **Redesigning the Interior of Autonomous Vehicles** – *ME310 design project in partner with Renault (French Car company) and NTNU (Norwegian Univ. of Science and Technology)*
- Working on rethinking and evolving the interior of future highly autonomous vehicles (Level 4) to enhance the experience of its occupants when they are not driving. Created prototypes for several design ideas following extensive need finding and benchmarking.
- 4/15-5/15 **Autonomous Plant Watering System** – *Electrical Senior Capstone Design Project*
- Designed a microprocessor-driven water delivery device for indoor potted plants utilizing Arduinio controller. Device was designed to operate independently over the range of 10 days and to allow the user to monitor moisture level in real time.
- 9/14-12/14 **Design of High Temperature Valve Position Sensor** – *Mechanical Senior Capstone Design Project*
- Designed & prototyped a bleed valve sensor for United Technologies Aerospace (UTAS). Rated for temperature fluctuations from 40F-1200F and unbalanced vibrations of up to 40G's. Involved rigorous mechanical design, manual machining, & material selection.
- 2013+2015 **COMSOL Modeling for Heat Dissipation from Electronics & Modeling of Optical Fiber Drawing Process**
- 1/13-5/13 **Firefighting Robot** - Utilized the Lego Mindstorm Kit in designing and programming a robot to autonomously detect and extinguish fire flames following the guidelines of the Trinity College Robot Contest
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HONORS

Tau Beta Pi (Eng. Honor Society) chapter vice president • *Junior & Senior Regents' Honor Awards* - for students with the highest GPA in college • *Dean of Students Service Award* – organization leader • *King Hussein Scholarship* - awarded to one Jordanian student