Saunon Malekshahi

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EDUCATION

University of California, Berkeley, Berkeley, CA
B.S. in Mechanical Engineering — Aug 2015 – May 2019

Coursework: Engineering Mechanics Mechanical Properties of Materials Thermodynamics
Solid Mechanics Design of Information Devices and Systems Manufacturing and Tolerancing

- GPA: 3.54/4.0

EXPERIENCE

Natilus Inc., Richmond, CA
R & D Engineering Intern — Jun 2017 – Present

- Designing and developing systems for the Nemo-class Unmanned Freight Drone
- Projects in aircraft design involving scaled modeling finite element analysis, mechatronics for unmanned systems, and composite material prototyping

NASA Ames Research Center | Berkeley Emergent Space Tensegrities (BEST) Laboratory, Berkeley, CA
Undergraduate Researcher — Jun 2016 – Present

- Developed the TT-4mini V2 Spherical Tensegrity Robot in collaboration with NASA Ames Research Center; first planetary scouting vehicle capable of climbing inclines exceeding 24º
- Co-authored publication accepted to the IEEE IROS 2017 Conference detailing implementation of multi-cable actuation control scheme to enhance robot's locomotive ability on inclined surfaces
- Optimized functionality of the TT-4mini with modularizing capability and a mobile, Bluetooth-enabled control platform
- Co-authored publication submitted to the IEEE ICRA 2017 for a prototyping platform of spherical tensegrity robots that reduces manufacture and assembly time

PUBLICATIONS

[1] Anand, R.; English, A.; Gao, D.; Malekshahi, S.R.; Sinha, R.; Stevenson, N.; "Goldeneye AB1," in *NASA Advanced Air Vehicles Symposium*, Langley, VA, Sep 2017.

[2] Chen, L.H.; Cera, B.; Zhu, E.L.; Edmunds, R.; Rice, F.; Bronars, A.; Tang, E.; Malekshahi, S.R.; et al., "Inclined Surface Locomotion Strategies for Spherical Tensegrity Robots," in *Intelligent Robots and Systems*, Vancouver, Canada, Sep 2017.

[3] Chen, L.H.; Romero, O.; Zhu, E.L.; Daly, M.C.; Cera, B.; Ghahani, F.; Malekshahi, S.R.; et al., "Modular, Elastic Lattice Platform for Rapid Prototyping of Spherical Tensegrity Robots," in *International Conference on Robotics and Automation*, Singapore, May 2017.

COMPETITIONS

NASA Aeronautics University Design Challenge | Honorable Mention — January 2017 – August 2017

- Designed a commercial supersonic business jet to meet NASA performance and environmental goals by 2025
- Features high-lift, variable geometry ogival delta wing enabling efficient subsonic and supersonic cruise
- Invited to present submission at Langley Research Center Winner's Symposium

Hack.SYRIA Hackathon: Izdihar | First Place — April 2017

- Overall first place winner in web-development hackathon organized by Haas Business School's AMENA Center; dedicated to aiding Syrian refugee relief effort in domain of mental health
- Developed virtual mental health service platform linking medical professionals to resettling refugees

ACTIVITIES

Pars Network at Berkeley Berkeley, CA
Co-founder and President — 2017 – Present

- First professional Iranian society at UC Berkeley. Platform connecting students, faculty, and alumni of Iranian origin to collaborate professionally with the greater Iranian-American community in the San Francisco Bay
- Debuted in Fall 2017 with launch gala, followed by keynote speaker series, faculty dinners, and industry panels

Latin American Leadership Society Berkeley, CA
Forum Chair — 2016 – 2017

- Recruited Vicente Fox, former President of Mexico, as keynote speaker to Spring 2017 LLS Forum. Led group of 30+ in handling negotiations, venue logistics, and event publicity
- Recruited Consul General Lugo of Venezuela and Emmy award-nominee Andrés Cediel for Spring 2016 LLS Forum

Aero Design SAE Berkeley, CA
Empennage Team — 2015 – 2016

- Designed and built T-tail empennage configuration for 9-foot wingspan competition aircraft with NACA 0008 airfoil

TECHO Costa Rica San José, Costa Rica
Volunteer — 2014 – 2015

- Led group of 200+ volunteers during regional construction project that built 9 housing units in underserved communities
- Co-organized TECHO's first soccer tournament in Costa Rica, successfully raising $1500 for the organization

SKILLS & INTERESTS

Languages: Spanish & Farsi (native proficiency), Portuguese (working proficiency)
Skills: MATLAB, Python, LaTeX, AutoCAD, SolidWorks, Composite Manufacturing, 3D Printing, Cura, Laser Cutting, Machining
Interests: Supersonics, Piloting (Certified Student Pilot), Volleyball (Cal Club Team), Middle Eastern Politics, Salsa Dancing, Cooking