Exponent®
Engineering & Scientific Consulting

Behnam Zahiri, Ph.D.

Associate | Vehicle Engineering
149 Commonwealth Drive | Menlo Park, CA 94025
(650) 688-7159 tel | bzahiri@exponent.com

Professional Profile

Dr. Zahiri specializes in mechanical engineering, numerical simulation methods and vehicle engineering. He has particular expertise in solid mechanics, finite element analysis, optimization, mechanical design and manufacturing. Dr. Zahiri also specializes in machine learning and artificial intelligence and is familiar with the autopilot algorithms behind AVs as well as other intelligent agents. In collaboration with NASA, he has researched and helped developing the technology for building planetary habitats using ISRU (in-situ resource utilization) with additive manufacturing technology and using robotic systems.

Prior to joining Exponent, Dr. Zahiri completed internships both at Tesla Inc. as well as Hyperloop One. At Tesla Inc., he worked on design, testing, analysis and optimization of mechanical components in autopilot hardware systems. And at Hyperloop One he carried out analysis and optimization of the substructures of the first hyperloop system.

Academic Credentials & Professional Honors

Ph.D., Astronautical Engineering, University of Southern California, 2019

M.S., Computer Science, University of Southern California, 2018

M.S., Mechanical Engineering, Sharif University of Technology, Iran, 2012

B.S., Mechanical Engineering, Sharif University of Technology, Iran, 2010

Licenses and Certifications

Data Science and Big Data Analytics: Making Data-Driven Decisions, MIT xPro, 2019

Prior Experience

Mechanical Engineering Intern, Tesla Inc., 2017-2018

Structural Analyst Intern, Hyperloop One, 2016

Professional Affiliations

American Institute of Aeronautics and Astronautics (AIAA)

Association for the Advancement of Artificial Intelligence(AAAI)

American Society of Mechanical Engineers(ASME)

Society of Automotive Engineers(SAE)

Languages

Farsi

Publications

Xiao Yuan, Jing Zhang, Behnam Zahiri, Behrokh Khoshnevis, “Performance of Sulfur Concrete in Planetary Applications of Contour Crafting”, International Solid Freeform Fabrication Symposium, Additive Manufacturing Conference – 2016 – Best Paper Award

Behrokh Khoshnevis, Behnam Zahiri, Xiao Yuan, Bin Xia, “Deformation Analysis of Sulfur Concrete Structures Made by Contour Crafting,” AIAA SPACE 2015 Conference and Exposition. (Presented by B. Khoshnevis and B. Zahiri)

Behrokh Khoshnevis, Xiao Yuan, Behnam Zahiri, Jing Zhang, Bin Xia, "Construction by Contour Crafting using Sulfur Concrete with Planetary Applications," International Solid Freeform Fabrication Symposium, Rapid Prototyping Journal Volume 22, Issue 5 pp. pp. 848-856-{3}, August 10-12, 2015. (Presented by B. Zahiri and X. Yuan)

B. Zahiri, M.T. Ahmadian, "Fine-tuned double-deck Stewart platform using base excitation with a 6DOF piezo-driven hexapod," Scientia Iranica, Journal of Mechanical Engineering, Vol. 22, No. 3, 2015, pp 865-870

Book Chapters

Co-authored a book chapter “Artificial Intelligence and Social Work”, Cambridge University Press, 2018

Peer Reviewer

Composites Part B