Scotty Tehrani

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PROFESSIONAL SUMMARY

Accomplished researcher with over 5 years of specialized experience in autonomous vehicle technologies, focusing on advanced materials and systems integration. Possesses deep expertise in developing cutting-edge materials for vehicle components and novel algorithms for enhanced performance. Demonstrates a proven track record in project management, efficiently allocating budgets and securing industry funding. Strong leadership skills are evidenced through successful cross-functional team coordination and mentorship of junior researchers. This combination of technical knowledge, project management acumen, and leadership ability positions the candidate to drive innovation and lead high-impact research initiatives in autonomous vehicle development.

EDUCATION

University of California, Riverside (UCR)
Ph.D., Electrical Engineering   June 2024
Areas of Expertise: Intelligent autonomous vehicles, climate impact on power systems

University of XXXXX, Tehran, Iran
M.S., Electrical Engineering   June 2019

B.S., Mechanical Engineering   Jun 2017

TECHNICAL SKILLS

Software: Solid Works, AutoCAD, Nano Pattern Generation System (NPGS), COMSOL, JMP
Nanofabrication: Nanosphere lithography, wet/dry etching, E-beam/optical lithography

ELECTRICAL ENGINEERING EXPERIENCE

Multi-Laboratory Autonomous Vehicle Research Study, UCR Department of Engineering
Team Lead   May 2022 – Present

- Lead and organize a team of 8 engineering faculty and postdoctoral researchers 5 research laboratories
- Identify laboratory equipment needs and balanced a budget of $12,000 purchasing supplies and instruments quarterly
- Collaborate with colleagues to develop 3 peer-reviewed publications, conferences presentations and successful grant proposals
- Manage the integration of research findings from diverse subfields including computer vision, machine learning, and sensor technology
- Develop and maintain partnerships with industry sponsors, securing an additional $50,000 in funding
- Represent the research group at national conferences, presenting findings and networking with potential collaborators

TechDrive Innovations, San Francisco, CA
Autonomous Vehicle Intern   June 2023 - August 2023

- Researched advanced materials for lightweight, durable sensor housings

- Tested various polymer composites to optimize weather resistance for exterior components
- Evaluated heat-dissipating materials to enhance performance of onboard computing systems
- Developed prototypes for impact-resistant casings for LIDAR and camera systems
- Analyzed data from material fatigue tests to improve long-term durability of vehicle parts
- Collaborated with cross-functional teams to integrate new materials into existing designs

Department of Electrical Engineering, UCR
Senior Research Associate   September 2020 – May 2022

- Collected and analyzed electrically gated graphene-on-diamond devices and compared them with graphene-on-oxide devices
- Synthesized thermal interface materials using graphene filler and reported findings in a 20 page technical report
- Secured grant funding and oversaw budget costs for 2 research projects

STARTUP Company, Madrid, Spain
Electrical Design Engineer Intern   **June 2019– August 2019**

- Analyzed electrical data to study stress/strain on transistor performance and compact modeling
- Worked with a team of 4 lab engineers to create test structures on materials characterization
- Presented project findings at the 2018 Texas Instruments annual conference to an audience of 50 participants

LEADERSHIP EXPERIENCE

Graduate Student Association (GSA), UCR
Vice President, Memberships   January 2023 – Present

- Manage editing and production of GSA's website and redesigned user interface
- Collaborate with GSA President in facilitating monthly board council meetings consisting of 85 members and organized virtual meetings

PROFESSIONAL MEMBERSHIPS

Member, Institute of Electrical and Electronics Engineers   October 2020– Present
Member, American Association for the Advancement of Science   October 2020 – December 2022
Member, Association for Computing Machinery (ACM)   January 2020 – December 2021

PUBLICATIONS (1 out of 6) Presentations (1 out of 4)

Tehrani, S. and XXXX, E. Materials Characterization. Journal of New Technology. (In Press).

Tehrani, S. and XXXXXXX, J. Intelligent Autonomous Vehicles. Poster presentation delivered virtually at the Institute of Electrical and Electronics Engineers (IEEE) Conference, October, 2022.

OTHER SKILLS

Computer: Microsoft Word, PowerPoint, Excel, SPSS, LaTeX
Language: Trilingual in English, Spanish and Farsi