Sonny T. Jones (He/Him/His)

Email: sonny.jones@hsc.utah.edu
Website: https://sonnyjones123.github.io/Portfolio/
GitHub: https://github.com/sonnyjones123

Interests

Machine Learning, Reinforcement Learning, Deep Learning, Artificial Intelligence, Robotics, Neural Engineering, Neural Interfaces, Video Games, Weightlifting

Education

Doctor of Philosophy, Biomedical Engineering, Data Science and Computation Track *2027*

University of Utah, Salt Lake City, Utah, USA

Thesis: "*Predicting Terrain Transitions After Stroke Using Reinforcement Learning Methods*"

Advisor: Ashley Dalrymple

Master of Science, Biomedical Engineering, Data Science and Computation Track *2027*

University of Utah, Salt Lake City, Utah, USA

GPA: 4.00

Bachelor of Science, Biomedical Engineering, NeuroEngineering Emphasis *2021*

University of Utah, Salt Lake City, Utah, USA

GPA: 3.79

Thesis: *"Development of Electrocardiographic Measures for Cognitive Load During Prosthesis Use"*

Advisor: Michael Paskett, Gregory Clark

Experience

Graduate Research Assistant *2023 – Present*

Neural Engineering for Rehabilitation Via Electrical Stimulation (NERVES) Lab

Department of Biomedical Engineering, University of Utah, Salt Lake City, Utah, USA

Mentor: Ashley Dalrymple

Post-Baccalaureate Research Assistant *2022 - 2023*

Utah NeuroRobotics Lab

Department of Electrical and Computer Engineering, University of Utah, Salt Lake City, Utah, USA

Mentor: Marshall Trout, Jacob George

Research Analyst/Assistant *2021 - 2023*

Trajectories of Resilience, Community, and Health Lab (TORCH)

Division of Epidemiology, Department of Medicine, University of Utah School of Medicine, Salt Lake City, Utah, USA

Mentor: Mary Jo Pugh

Undergraduate Research Assistant *2019 - 2021*

Center for Neural Interfaces

Department of Biomedical Engineering, University of Utah, Salt Lake City, Utah, USA

Mentor: Michael Paskett, Gregory Clark

Certifications

Deep Learning Certificate 2025

College of Engineering, University of Utah, Salt Lake City, Utah, USA

Reinforcement Learning Specialization *2023*

University of Alberta and Alberta Machine Intelligence Institute on Coursera

Machine Learning Scientist *2022*

DataCamp

Data Science Professional *2022*

DataCamp

Grants

Undergraduate Research Opportunity Program Grant *2020*

Office of Undergraduate Research, University of Utah, Salt Lake City, Utah, USA

Office of Undergraduate Research Small Grant *2019*

Office of Undergraduate Research, University of Utah, Salt Lake City, Utah, USA

Undergraduate Research Opportunity Program Grant *2019*

Office of Undergraduate Research, University of Utah, Salt Lake City, Utah, USA

Scholarships

Campbell Endowed Fellowship *2023*

College of Engineering, University of Utah, Salt Lake City, Utah, USA

John C. Jackson Trust Scholarship *2021*

College of Engineering, University of Utah, Salt Lake City, Utah, USA

Dee Undergraduate Research Scholarship *2020*

Office of Undergraduate Research, University of Utah, Salt Lake City, Utah, USA

President's Scholarship *2017*

University of Utah, Salt Lake City, Utah, USA

Publications

1. **ST Jones**, MD Paskett, GA Clark, CC Duncan. "Development of Electrocardiographic Measures for Cognitive Load During Prosthesis Use*", Undergraduate Research Journal,* **2021**.

Pre-Print

1. MD Paskett, JK Garcia, **ST Jones**, MR Brinton, TS Davis, CC Duncan, JM Cooper, DL Strayer, GA Clark. "Improving Upper-limb Prosthesis Usability: Cognitive Workload Measures Quantify Task Difficulty"*, medRxiv*, **2022.**

In-Progress

1. K North, **ST Jones**, GM Simpson, AN Dalrymple. "Spinal Cord Stimulation: The Future of Rehabilitation", Invited Review, *Current Opinions in Biomedical Engineering: Bioelectronic Medicine.*
2. AN Dalrymple, **ST Jones**, JB Fallon, RK Shepherd, DJ Weber. "The Trials and Tribulations of Implanted Neural Interfaces and How Chronic In Vivo Testing Drives Innovation.".

Presentations

1. **ST Jones**, MD Paskett, GA Clark, CC Duncan. "Development of Electrocardiographic Measures for Cognitive Load During Prosthesis Use*". BME Undergraduate Research Symposium*, Salt Lake City, UT, USA, April **2021**.

Poster Presentations

1. **ST Jones**, MD Paskett, GA Clark, CC Duncan. "Development of Electrocardiographic Measures for Cognitive Load During Prosthesis Use*". BME Undergraduate Research Symposium*, Salt Lake City, UT, USA, April **2021**.

Conference Abstracts

1. **ST Jones**, GM Simpson, K North, PM Pilarski, AN Dalrymple. "Predicting Terrain Transitions After Stroke Using Reinforcement Learning Methods". *Rocky Mountain American Association of Biomechanics*, Estes Park, CO, USA, April **2024**.
2. GM Simpson, **ST Jones**, K North, PM Pilarski, AN Dalrymple. "Optimal Body-Worn Sensors for Predicting Terrain Transitions While Walking". *Rocky Mountain American Association of Biomechanics*, Estes Park, CO, USA, April **2024**.

Extracurricular Activities

First Robotics Competition Mentor *2023-Present*

Red Rock Robotics, West High School, Salt Lake City, Utah, USA

Director of Patient Impact *2022-2023*

Project Embrace, West Jordan, Utah, USA

Director of Marketing and Community Engagement *2021-2022*

Project Embrace, West Jordan, Utah, USA

Community Outreach and Engagement Chair *2020-2021*

Southwest Union of Vietnamese Student Associations (SWUVSA)

External Vice President *2019-2020*

Vietnamese American Student Association (VASA), University of Utah, Salt Lake City, Utah, USA

Counsel of School Representatives (CoSR) Member *2019-2020*

Southwest Union of Vietnamese Student Associations (SWUVSA)

Academic Honors/Awards

Phi Eta Sigma Honors Society, University of Utah *2017-2021*

Dean's List, University of Utah *2017-2021*