

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**, 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**.
3. **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**.

Open-Source Software and Data Repositories

1. [MachineLearning Gait Front End](#)

Academic Honors/Awards

Phi Eta Sigma Honors Society, University of Utah	2017-2021
Dean’s List, University of Utah	2017-2021

Service and Volunteerism

University

- **Volunteer, National Biomechanics Day** 2024
University of Utah, Salt Lake City, Utah, USA
- **Volunteer, Biomedical Engineering Recruitment Weekend** 2024
Department of Biomedical Engineering, University of Utah, Salt Lake City, Utah, USA
- **External Vice President** 2019-2020
Vietnamese American Student Association (VASA), University of Utah, Salt Lake City, Utah, USA

Community

- **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
- **Member, Research Committee** 2021-2023
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)
- **Counsel of School Representatives (CoSR) Member** 2019-2020
Southwest Union of Vietnamese Student Associations (SWUVSA)
- **Emergency Room Volunteer** 2019-2020

University of Utah Hospital, Salt Lake City, Utah, USA

- **Medical Interpreter & Patient Assistance Program** *2019-2020*

Maliheh Free Clinic, Salt Lake City, Utah, USA

- **Camp Counselor** *2018, 2019*

Camp Anytown, Inclusion Center, Salt Lake City, Utah, USA

Media

Television

- **[“Medical Innovations at the University of Utah”](#)** *2022*

University of Utah, The College Tour, Amazon