Azizul Zahid

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<u>LinkedIn | GitHub | Website | Google Scholar</u>

RSEARCH INTERESTS

LLM, Edge-AI, Reinforcement Learning, Health Robotics, Wearable Sensors

ACADEMIC CREDENTIALS

University of Tennessee, Knoxville	June'23 - Present
PhD (ongoing) in Computer Engineering (3.97/4.00)	Knoxville. TN. USA

University of Tennessee, Knoxville

M.Sc. in computer engineering (3.97/4.00)

June'23 - May'25

Knoxville, TN, USA

Bangladesh University of Engineering and Technology

B.Sc. in Electrical and Electronic Engineering (3.63/4.00)

Feb'17 - May'22 Dhaka, Bangladesh

RESEARCH EXPERIENCES

Graduate Research Assistant, EPIC LAB

June'23 - Present

Supervisor: Dr. Sai Swaminathan

Electrical Engineering and Computer Science (EECS), University of Tennessee, Knoxville

WORK EXPERIENCES

Graduate Teaching Assistant

Fall'23, Spring'24, Fall'24, Spring'25, Fall'25

Courses: Embedded Systems (ECE 455/555) Computer Organizations (COSC 230), Circuits I (ECE 201),

Computer System Organization (ECE 356)

Electrical Engineering and Computer Science (EECS), University of Tennessee, Knoxville

Lecturer in Electrical and Computer Engineering

Southeast University, Dhaka, Bangladesh

October'22 - March'23

PUBLICATIONS

Conferences

C1: "PulseRide: A Robotic Wheelchair for Personalized Exertion Control with Human-in-the-Loop Reinforcement Learning", **Azizul Zahid**, Bibek Poudel, Danny Scott, Jason Scott, Scott Crouter, Weizi Li, Sai Swaminathan, accepted in IEEE/ACM CHASE 2025.

W1: "Toward Aligning Human and Robot Actions via Multi-Modal Demonstration Learning", Azizul Zahid, Jie Fan, Farong Wang, Ashton Dy, Sai Swaminathan, Fei Liu, accepted in ICRA 2025.

Journals

J1: "Radio Gami: Battery-free, Micropower, Long-Range, Interactive Frequency Selective Surfaces", Imran Fahad, Danny Scott, **Azizul Zahid**, Matthew Bringle, Srinayana Patil, Ella Bevins, Carmen Palileo, Sai Swaminathan, accepted in "Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) – 2025".

J2: "NeuroCamTags: Long-Range, Battery-free, Wireless Sensing with Neuromorphic Cameras", Danny Scott, Matthew Bringle, Imran Fahad, Gaddiel Morales, **Azizul Zahid**, Sai Swaminathan, accepted in "Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) – 2024".

J3: Mir Sayeed Muhammad, **Azizul Zahid**, Md. Asif Iqbal, "BanglaNum - A Public Dataset for Bengali Digit Recognition from Speech", arXiv preprint arXiv: 2403.13465, 2024

RELEVENT COURSEWORKS

Graduate level: Reinforcement Learning (ECE 517), Embedded Systems (ECE 555), Bio Inspired Computation (COSC 527), Deep Learning (COSC 525), Natural Language Processing, Human Computer Interaction, Computer Vision (ECE 574), Robot opt., est. & cont. (ECE 599)

Undergraduate level: Probability and Statistics, Linear Algebra, Calculus, Microprocessors and Embedded System, Digital Electronics, Solid State Devices, Communication I & II, Computer Programming theory & Lab, Digital Signal Processing, Control Systems

TECHNICAL SKILLS

Programming Languages: Python, MATLAB, C/C++

Data mining: NumPy, Pandas

Data visualization: Matplotlib, Seaborn

Machine learning: Scikit-Learn

Deep learning: PyTorch

Others: Git, GitHub, Latex, MS office

PROJECTS

- "FlowSync: Synergizing Heartbeat and Algorithms for Dynamic Fluid Control Enhancement." Course project for ECE 517 (Fall'23)
- "IoT-based Temperature Control System in Poultry Farm." Course project for ECE 555 (Fall'23)
- "Adaptive Neural Piloting: Exploring Neural Network Applications in Aviation Simulation." Course project for COSC 525 (Spring'24)
- "Gesture Recognition using Spiking Neural Network." Course project for COSC 527 (Spring'24)

REFERENCES

Dr. Sai Swaminathan Assistant Professor EECS, UTK

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