Eshan Ramesh

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Education

2024-Present **M.S Information and Communications Engineering**, *Tokyo Institute of Technology*, Tokyo, Japan

2021-2024 [2yr] **B.S Computer Science**, *Georgia Institute of Technology*, Atlanta, GA, Specialization in AI and CS theory

Experience

2024-Present **Research Assistant**, *Nishio Laboratory*, Tokyo, Japan

Generating camera images from WiFi CSI. Developed a new fast latent-space method, and built a practical, scalable, distributed prototype.
[Linux WiFi firmware/networking, Rust, Python ML]

- High-resolution efficient image generation from WiFi CSI using a pretrained latent diffusion model (IEEE Globecom 2025/11)
- LatentCSI demo proposal (ACM Mobicom 2025/12)

2022-2023 **Intern**, *NTT Network Innovation lab (未来ねっと研究所)* , Yokosuka, Japan

Utilized physical information to make inferences about wireless conditions with machine learning. Worked on an automatic data generation testbed with moving humanoid robots carrying commerical 5G terminals.
[Panasonic 5G, ROS (Lisp; Python), LiDAR, Python ML]

- 5G throughput prediction using LiDAR (IEICE SeMI 2023/5)
- 5G throughput prediction in 28GHz cells using physical information (Japanese; IEICE SeMI 2023/7)

2021-2022 **Research Assistant**, *Communications architectures group*, Atlanta, GA

Worked on single-access-point active localization with software defined radio. Low level radio hacking. Work sponsored by NSF.
[GNUradio (C++), NI USRP, Python ML]

Projects [gh:eshrh]

inori TUI music player [Rust, 80 stars]

ames Generates audiovisual context for spaced-repetition flashcards automatically. [POSIX shell, 70 stars]

Computer skills

Languages **Python, Shell, Lisp dialects (Clojure, Common Lisp, Racket), C++**

Technology **GNU/Linux, SDR, Git, LaTeX, Emacs**

Natural Languages

Native English ■■■■■

Proficient Japanese ■■■■□, Kannada ■■■□□

Basic Mandarin ■□□□□, French ■□□□□