Saturday, October 13

2:00 pm Welcoming remarks
Dr. Slava Gerovitch, PRIMES Program Director
Prof. Srini Devadas, MIT EECS Department

2:10 pm Session 1
Sanath Govindarajan and Walden Yan, Secure image classification with lattice-based fully homomorphic encryption (mentor William Moses)
John Kuszmaul, Verkle trees: Very short Merkle trees (mentor Alin Tomescu)
Yiming Zheng, Scaling transaction verifications in cryptocurrencies (mentor Alin Tomescu)
Robert Chen, Aleator: Random beacon via scalable threshold signatures (mentor Alin Tomescu)

3:30 pm Session 2
David Lu, XRD: A Scalable messaging system with cryptographic privacy (mentor Albert Kwon)
Ethan Mendes and Patrick Zhang, Maintaining the anonymity of direct anonymous attestations with subverted platforms (mentor Kyle Hogan)
Shashvat Srivastava, AnonStake: An Anonymous proof-of-stake cryptocurrency via zero-knowledge proofs and Algorand (mentor Kyle Hogan)

4:30 pm Session 3
Michael Gerovitch, Neil Malur, and Hari Narayanan, The Second Opinion Project: Leveraging external knowledge databases for additional patient medical options (mentor Dr. Gil Alterovitz)
Yingtong Zhao, Server and interface for genetic risk assessment (mentor Dr. Gil Alterovitz)
Leo Dong, Novel feature learning method of gene expression data based on an optimized denoising autoencoder (mentor Dr. Gil Alterovitz)
Andrew Zhang, Antimicrobial resistance prediction using deep convolutional neural networks on whole genome sequence data (mentor Dr. Gil Alterovitz)

5:45 pm Session 4
Anusha Murali, A Semi-Supervised dimensionality reduction method to reduce batch effects in genomic data (mentor Dr. Mahmoud Ghandi, Broad Institute)
Sanjit Bhat, Towards efficient methods for training robust deep neural networks (mentor Dimitris Tsipras)
Aditya Saligram and Andrew Shen, A Practical analysis of Rust’s concurrency story (mentor Jon Gjengset)

Photo: Slava Gerovitch