Matthew W. Edwards

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Education

Bachelor of Science, Electrical and Computer Engineering, The University of Texas at Austin   **05/2018**
> **GPA:** 3.82/4.00 *With Honors*

Employment

Senior Software Engineer | Meta Platforms   **08/2020 – Present**
- Software contributor and release manager for Terragraph, a 60Ghz wireless mesh-network
- Analyze and debug faults in the operation of Terragraph networks' MAC and IP layers
- Develop system configuration and software applications for Terragraph radios
- Collaborate with radio manufacturers to develop features for Terragraph and respond to bug reports
- Develop software based on Open-RAN (O-RAN) standards to replace legacy RAN systems
- Manage interns and junior team members

Software Engineer | GenXComm Incorporated   **05/2018 – 08/2020**
- Develop firmware for controlling RF-photonic self-interference cancellation systems
- Design and implement electro-optical systems for testing and measuring photonic integrated circuits
- Provide applications to digital, RF, and photonic engineers for use in controlling electro-optical systems
- Create and maintain a database to track silicon photonics fabrication process development
- Design and layout photonic integrated circuits for use as RF filters and optical neural networks (ONN)
- Research and implement ONNs in silicon photonics with photonic engineers

Honors Scholars Intern | Applied Research Laboratory: UT Austin   **06/2017 – 08/2017**
- Developed a C++ API and XML schema for automating the decoding and re-coding of heterogeneously formatted sensor data

Publications

- Hardik Jain, **Matthew Edwards**, Ethan Elenberg, Ankit Singh Rawat, Sriram Vishwanath, "Achieving Multi-Port Memory Performance on Single-Port Memory with Coding Techniques," *IEEE 3rd International Conference on Information and Computer Technologies,* to be published. Available: https://arxiv.org/abs/2001.09599

- Monireh Moayedi Pour Fard, Ian A. D. Williamson, **Matthew Edwards**, Ke Liu, Sunil Pai, Ben Bartlett, Momchil Minkov, Tyler W. Hughes, Shanhui Fan, and Thien-An Nguyen, "Experimental realization of arbitrary activation functions for optical neural networks," Opt. Express 28, 12138-12148 (2020)

Technical Skills

- Programming Languages: C, C++, Python
- Other Software: Linux, Bash, Git, Yocto, AWS

Memberships and Awards

- Merit scholarship recipient (W. Smith Scholarship)   **09/2014**
- Alumni-Adviser Liaison Officer in Texas APO   **09/2016 – 12/2017**
- Member of HKN (Electrical Engineering Honor Society)   **09/2016 – Present**