

Emily Herbert

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Education

- 2021 **MS in Computer Science**, *The University of Massachusetts Amherst*, Amherst, MA.
2018 **BS in Computer Science**, *Trinity University*, San Antonio, TX.

Skills

Languages, Proficient: Rust, Scala, JavaScript, TypeScript, Python, OCaml, C++

Familiar: Haskell, Idris, C, C#, R, Java, Greenfoot, ScalaFX, JavaFX.

Tools, Kubernetes, Docker, OpenWhisk, Google Cloud Platform, Unity, Helm, Sbt, Yarn, Cargo .

Systems, Apache Spark, CouchDB .

Specialties, Serverless Computing, Cloud Computing, Language Development, Compiler Development, Software Development, Game Development, Distributed Computing, Object Oriented Programming, Functional Programming, Software Design, System Design .

Relevant Experience

May 2021 – **Google**, *Madison, WI*.

Aug 2021 Software Engineering Intern

Implemented load balancing in a library meant to interface with the network card and perform RPC-like operations using RMA, achieved by integrating two existing early-development libraries together. Contributed to app design on a Google 2023 project.

Jan 2021 - **NEU PRL Lab**, *Northeastern University*.

present Researcher

Northeastern University Programming Research Laboratory (NEU PRL), advised by Prof. Arjun Guha. Researching programming language and systems tools for serverless computing.

prl.ccs.neu.edu

May 2019 - **PLASMA Lab**, *University of Massachusetts Amherst*.

Jan 2021 Researcher

Programming Languages and Systems at Massachusetts lab (PLASMA), advised by Prof. Arjun Guha. Researching programming language and systems tools for serverless computing.

plasma-umass.org

Talks & Publications.

Emily Herbert and Arjun Guha. A Language-based Serverless Function Accelerator. 2020. [[preprint](#), [repo](#)]

Emily Herbert. A Language-based Serverless Function Accelerator. *Cornell CAPRA Lab*. 2020. [[slides](#)]

June 2018 - **DREAM Lab**, *University of Massachusetts Amherst*.

May 2019 Researcher

Data systems Research for Exploration, Analytics, and Modeling lab (DREAM), advised by Prof. Peter Haas. Researching deep learning methods for simulation input modeling.

dbgroupp.cs.umass.edu

Talks & Publications.

Wang Cen, Emily A. Herbert, and Peter J. Haas. NIM: Modeling and Generation of Simulation Inputs via Generative Neural Networks. *Winter Simulation Conference*. 2020. [[paper](#)] **Best Contributed Theoretical Paper Finalist**

Emily A Herbert. NIM: Generative Neural Networks for Simulation Input Modeling. *SCS Summer Simulation Conference*. 2019. [[slides](#)]

Emily A Herbert, Wang Cen, and Peter J Haas. NIM: Generative Neural Networks for Simulation Input Modeling. *Summer Simulation Conference*. 2019. [[short paper](#)]

June 2017 – **National Aeronautics and Space Administration (NASA)**, *Langley, VA*.

Aug 2017 NASA Internships, Fellowships, and Scholarships (NIFS) Intern

Contributed to the NASA Safeguard autonomous drone geofencing project. Designed and implemented system for on-board flight control of GPS devices. Refactored code from previous NASA flight missions to meet current mission standards.

June 2016 – **General Electric (GE), Oil & Gas**, *Billerica, MA*.

Aug 2016 Information Technology Leadership Program (ITLP) Intern

Created asset tracking system for shop floor using RFID, Bluetooth LE, and Raspberry Pi. Worked with the SAP enterprise resource management software to automate EHSM compliance checks.