Emily Herbert

herbert.emilyanne.jobs@gmail.com • emilyaherbert.com • github.com/emilyaherbert

Education

2021–present **PhD in Computer Science**, *Northeastern University*, Boston, MA.

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 – Aug 2021 **Google**, *Madison, WI.*
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 - present **NEU PRL Lab**, *Northeastern University.*
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

Talks & Publications.

Emily Herbert and Arjun Guha. A Language-based Serverless Function Accelerator. 2021. [preprint, repo]

May 2019 - Jan 2021 **PLASMA Lab**, *University of Massachusetts Amherst*.
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. A Language-based Serverless Function Accelerator. *Cornell CAPRA Lab.* 2020. [slides]

June 2018 - May 2019 **DREAM Lab**, *University of Massachusetts Amherst*.
Researcher
Data systems Research for Exploration, Analytics, and Modeling lab (DREAM), advised by Prof. Peter Haas. Researching deep learning methods for simulation input modeling.
dbgroup.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 – Aug 2017 **National Aeronautics and Space Administration (NASA)**, *Langley, VA.*
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.