

# Emily Herbert

emilyherbert@cs.umass.edu • emilyherbert.com

|                              |  |
|------------------------------|--|
| <b>EDUCATION</b>             | <b>University of Massachusetts Amherst</b> , Amherst, MA ..... <b>May 2023</b><br>PhD in Computer Science<br><b>Trinity University</b> , San Antonio, TX ..... <b>May 2018</b><br>BS in Computer Science   |
| <b>RESEARCH EXPERIENCE</b>   | <b>University of Massachusetts Amherst</b> , Amherst, MA ..... <b>June 2018 – present</b><br>Simulation Input Modeling with Deep Learning<br>Advised by Dr. Peter Haas. <ul style="list-style-type: none"><li>• Explore previous literature covering the cross-domain of simulation and deep learning.</li><li>• Implement deep learning models for input modeling.</li><li>• Create comprehensive report and prototype model.</li></ul> <b>Trinity University</b> , San Antonio, TX ..... <b>Jan 2017 – May 2018</b><br>Audio Style Transfer with Deep Learning<br>Advised by Dr. Matthew Hibbs. <ul style="list-style-type: none"><li>• Reviewed relevant domain literature covering style transfer, deep learning, and audio manipulation.</li><li>• Implemented deep learning models for audio style transfer.</li></ul>   |
| <b>TEACHING EXPERIENCE</b>   | <b>University of Massachusetts Amherst</b> , Amherst, MA ..... <b>Sept 2018 – present</b><br>Teaching Assistant <ul style="list-style-type: none"><li>• Help students in the Mathematical Foundation for Informatics course with mathematical logic, set theory, and proof writing.</li><li>• Design and implement set operation visualization application to be used as a student educational tool.</li></ul> <b>Trinity University</b> , San Antonio, TX ..... <b>Aug 2016 – May 2018</b><br>Teaching Assistant <ul style="list-style-type: none"><li>• Assisted in the Principles of Computer Science I, Principles of Computer Science II, and Introduction to Programming Logic courses.</li><li>• Acted as a resource for students for help with Scala, ScalaFX, Akka, Java, JavaFX, and Greenfoot.</li><li>• Designed, implemented, and upkept test server for student projects using Scala, Akka, and Actors.</li><li>• Monitor student progress, host office hours, meet with students by appointment, host exam review sessions.</li></ul> |
| <b>AWARDS</b>                | <b>PLMW and POPL 2019 Scholarship</b> ..... <b>Nov 2018</b><br>Scholarship awarded to new Programming Languages researchers to attend the 2019 Programming Languages Mentoring Workshop (PLMW) and Principles of Programming Languages Conference (POPL).<br><b>2018 UMass CICS Fellowship</b> ..... <b>Mar 2018</b><br>Merit-based fellowship awarded to an outstanding graduate student applicant within the UMass Amherst College of Information and Computer Sciences (CICS).  |
| <b>INTERNSHIP EXPERIENCE</b> | <b>National Aeronautics and Space Administration (NASA)</b> , Langley, VA ..... <b>June 2017 – Aug 2017</b><br>NASA Internships, Fellowships, and Scholarships (NIFS) Intern <ul style="list-style-type: none"><li>• Contributed to the NASA Safeguard autonomous drone geofencing project.</li><li>• Designed and implemented system for on-board flight control of GPS devices.</li><li>• Refactored code from previous NASA flight missions to meet current mission standards.</li></ul> <b>General Electric (GE), Oil &amp; Gas</b> , Billerica, MA ..... <b>June 2016 – Aug 2016</b><br>Information Technology Leadership Program (ITLP) Intern <ul style="list-style-type: none"><li>• Created asset tracking system for shop floor using RFID, Bluetooth LE, and Raspberry Pi.</li><li>• Worked with the SAP enterprise resource management software to automate EHSM compliance checks.</li></ul>  |
| <b>SERVICE</b>               | <b>Trinity University</b> , San Antonio, TX<br>University Curriculum Council (UCC) ..... <b>Aug 2017 – May 2018</b> <ul style="list-style-type: none"><li>• Reviewed and approved university curriculum additions and changes.</li><li>• Served as the student representative for a student body of ~2400.</li></ul>   |

Trinity University Women in Computing (TUWIC) .....Jan 2016 – May 2018

- Acted as a point of contact between the Trinity University Computer Science department and the collective body of female Computer Science majors.
- Organized club activities, recruited new members, maintained active club status.
- Hosted the 2017 TUWIC TECH Camp, a three week long tech bootcamp for middle-school aged girls interested in STEM.

**RELEVANT  
COURSEWORK**

**University of Massachusetts Amherst**, Amherst, MA

Programming Languages .....Sept 2018 – Dec 2018

- Implement systems for program interpretation, type checking, verification, and compilation.

**SKILLS**

**Languages**

Scala, Python, C++, Java, Haskell, OCaml, C, C#

**Libraries**

Pytorch, Numpy, Keras, Tensorflow, Akka, ScalaFX, JavaFX, Matplotlib, Deeplearning4j, MLib, Tensorboard

**Software**

Eclipse, Greenfoot, Unity, Visual Studio, VxWorks

**Tools**

Apache Spark, LaTeX, XML, HTML, Alex, Happy