

# LUCAS ERICSSON

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## EDUCATION

- **University of California Berkeley, Electrical Engineering and Computer Science**
  - Bachelors – GPA: 3.99 – 2022 - 2025
  - Masters – Expected Graduation: May 2026

## EXPERIENCE

- **UC Berkeley Research 2024 to Present - Machine Learning**
  - Implemented a Restricted Boltzmann Machine (RBM) neural network for image denoising
  - Recreated results from neural network paper on invertible AND gates using RBMs
  - Implemented and researching RBMs on a sparse graph structure to run efficiently and quickly on ASIC chip for generative problem solving
- **Amazon Summer 2025 Internship - Amazon Web Services (AWS) Intern**
  - Created a resource manager to allow async sharing of AWS Personalize resources across multiple threads and manage their lifecycle
  - Reduced several repositories of similar code into one location
- **Amazon Summer 2024 Internship - AWS Intern**
  - Optimized AWS Lambda Function, saving \$60,000/month
  - Solved Lambda timeout error by switching to AWS Fargate after analyzing each option
- **AVEVA Summer 2023 Internship - DevOps Intern**
  - Wrote PowerShell unit tests using Azure Rest API to verify successful migration from one Azure DevOps organization to another, used Fiddler and Postman for debugging
  - Managed Kubernetes Images, Node Pools, and Namespaces for Azure Pipeline Builds
  - Wrote a Rust NUnit XML to HTML converter to easily view Pester test results locally with a Pie chart and filterable table
- **Keysight Technologies Summer 2022 Internship - Software Engineering Intern**
  - Created an I/O Driver Event Example in C++, C#, and Visual Basic for responding to FPGA measurement results. Marshaled event data between these languages.
  - Parallelized Groovy Jenkins Pipeline and measured performance improvement

## PROGRAMMING LANGUAGES AND TECHNOLOGIES

- Rust, C++, Python, Java, HTML5, GDScript, Javascript, CSS, GML (Gamemaker Language), C#, x86 Assembly, React, Git, Unity, Godot, Linux, MacOS, Windows, Typescript, Powershell, MongoDB, Unreal Engine, Microsoft Azure, AWS, Django, Kubernetes, Docker, Wireshark

## PROJECTS

- My Github Profile: <https://github.com/lucasericsson222/>
- My Website: <https://lucasericsson222.github.io/>
- Coded a Morse code texting app
- Created a program to translate Roman alphabet into an Orbital alphabet with Javascript
- Recreated "Asteroids" with multiplayer
- Made a multiplayer text based adventure game using React, Node.js, and MongoDB
- Advent of Code 2023 and 2024 completed daily with Rust, Haskell and C++

## GAME JAMS

- Hoard a Horde - Zombie Invasion Game made in 4 days with a 4 person team for GMTK 2024
- Pyr - Shuffling Labyrinth Game made in 7 days with a 2 person team for Brackeys 2020.2
- Sunny Day - Plane Crash Simulator made solo in 2 days for GMTK 2020