

# AARON ELAM

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## SKILLS

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<b>Languages</b>	C/C++, Java, Python, JavaScript, HTML/CSS, SQL
<b>Libraries/Frameworks</b>	React, PostgreSQL, Spring Boot
<b>Tools</b>	Linux, Git, Docker, web servers

## PROJECTS

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### Interactive CPU Datapath Simulator

[Code] [Live Demo]

- Built a web-based application to teach the MIPS instruction set architecture (ISA) to students
- Technologies used: JS, jQuery, goJS, Bootstrap, Linux command line interface (CLI), Git, Apache2

### Review Sentiment Analyzer

- Scraped IMDb reviews and used sentiment analysis to judge if a review is positive or negative
- Utilized JUnit testing to ensure accuracy
- Employed object oriented design and documentation using Unified Modeling Language (UML)

### Parallelizing Fractal Problem

- Used GPUs in a distributed system to generate fractal images in parallel
- The overall results achieved linear speed up as the number of nodes increased
- Technologies used: MPI, OpenMP, and CUDA

### Web Server Hosting

- Used Digital Ocean to host game servers for online players
- Utilized Docker and Terraform to halve hosting costs

## EXTRACURRICULAR

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### Member of .EXE CS Club

- Introduced members to tools that proved to improve their programming experiences
- Peer-mentored students from the club to discuss course decisions and answer quick questions

### Competitive Programming

- Selected by industry judges for 2<sup>nd</sup> place at the Virtual Reality Development Group's 2018 Hackathon. [Code]
- Competed at the 2019 Texas-Mexico International Collegiate Programming Competition (ICPC)

## EDUCATION

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### Bachelor's of Science (B.S.) in Computer Science

Texas State University

May 2021

- Major GPA: 3.2
- Dean's List 2019-2020