

# CHELSEA BRADBURY

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## Summary

Software Engineer with a unique background, and strong problem-solving and debugging skills. Passionate about low-level programming, databases, 3D rendering and physics, and all things tech. Looking to explore new technical challenges with the best and the brightest.

## Experience

### Senior Software Engineer

April 2018 - Present

Human Interest - 401k provider

- Designed and built a distributed transaction import and reconciliation service
- Redesigned and migrated core database models with zero downtime, broadening the scope of supported customers
- Maintained and extended web automation infrastructure, preventing disruption of critical services
- Drafted detailed proposals to fix long-standing cross-service issues
- Designed and built intuitive graphical tools for operations teams
- Created and improved upon Typescript types for several nodejs modules, preventing a variety of errors
- Built an API integration with an external record-keeping service, improving contribution processing SLAs
- Built user-facing pages and tools to improve self-service support

### Software Engineer

February 2015 - April 2018

GreenCitizen Inc. - e-waste recycling

- Maintained and extended the functionality of in-house business management software
- Built an inventory management system with eBay integration, reducing inventory errors and improving shipping time
- Built various tools to automate operations workflows
- Maintained and updated company WordPress site
- Configured and deployed production servers

## Certifications

AWS Certified Solutions Architect - Associate

July 2019

## Interests and Personal Projects

### 3D Rendering and Physics

In my spare time I have built several rendering and physics engines leveraging C++, DirectX, and OpenGL. I find 3D math fascinating, and have implemented Swept-Sphere Collision Detection with the help of some really good research papers.

### Reverse Engineering

I love dissecting things to figure out how they work. I've built converters for undocumented 3D model file formats, image formats, and file archives. I also enjoy games like Microcorruption (debugging / capture the flag).

### Computer Hardware

I've always had a passion for computers, and that includes hardware. I love unique and interesting hardware, and have built and repaired literally hundreds of desktops, laptops, and servers.