# Jude Allred

Senior technologist specializing in product incubation
Servant leader who builds high-leverage teams
Fog Creek Software's first and only CTO
Co-Founder & CTO at HASH.ai

(720) 583-3720
jude@allred.nyc
allred.nyc
glitch.com/@jude
medium.com/@judeallred
github.com/judeallred

## Building HASH, a Tech Startup in Generalized Simulation

### HASH, INC. — CoFounder & CTO, CTA

January 2019 - March 2020

- Co-Founded HASH and built v1 of the simulation engine and IDE using Rust, TypeScript, WebAssembly and AWS
- Demoed to VCs and raised $*(It's a secret)*MM Seed Round
- Lead all engineering efforts, including product architecture and development, site reliability, engineering hiring, tech evangelism, and managing humans
- Scaled team from 2 to 10+, launched private beta in December 2019, public beta spring 2020, & pushing toward Series A

March 2020 - Present

- Continuing role as Chief Technical Advisor, aiding HASH as a consultant, mentor, technical architect, and strategist

## Ten Years at Fog Creek Software, from Intern to CTO

### Fog Creek Software, NYC — *Senior Member of Technical Staff*

June 2008 - January 2019 -- For a detailed narrative, check my CV at allred.nyc

- Initially hired as Full-Stack Developer contributing to FogBugz
- Tuned Full-Text Search engine to achieve **100x speed gain**
- Partnered with Patrick McKenzie, a SEO and business development expert, to analyze and tune customer acquisition; **raised Fog Creek's bottom line by 20%**
- Worked with FogBugz team to build a bespoke client-side web application in 2012, digging deep into JS and browsers
- First employee on site to assist at our NYC data center during Hurricane Sandy; There's a documentary about it
- Built a comprehensive and hurricane-tolerant backup/restore system for FogBugz, powered by AWS Glacier
- **Founded and lead multiple teams**, scaling them to ~8 people then coaching new leaders to take the helm
- Lead initiative to fully virtualize our production environment; Leveraged this work into a new FogBugz Onsite product which in its first year unlocked over **$2 million in enterprise sales**
- Overhauled our accounting systems to **increase revenue by 15%**
- **Lead technical hiring** and authored a complete overhaul of our engineering career ladder and salary leveling system
- Executive in charge of **product incubation for Glitch**; managed changeover of engineering focus from FogBugz to Glitch and scaling the Glitch team; **Glitch is now the entire company**, a team of 35+, and has **raised $30MM**

## SKILLS

**Moving the needle**; I seek tasks in an organization that impact its bottom line, build teams around solving them, then automate myself out of the process so I can do it again.

**Product incubation**; I know how to take an idea from a daydream all the way through incubation and proof, build a team for it, take it to launch, find its market fit and handle its maintenance gracefully.

**Team creation and mentorship**; I love highly effective engineering teams, and I teach them to focus on solving important problems instead of churning through lists of tasks.

**Polyglot programmer and architect**; I've written and architected code at every part of the tech stack. I've worked deeply with backend languages (C, C++, C#, Java, Rust), scripting languages (PowerShell, Python), 12+ years of JavaScript versions and frameworks, and most recently a strong combination of TypeScript/React.js, Rust, and WebAssembly.

I seek to find and use the best tools for the task.

## Academics & Research

### University of Colorado at Boulder — BS/MS CompSci

August 2004 - May 2009

Completed a concurrent Bachelor's/Master's degree program in Computer Science with the College of Engineering and Applied Sciences.

I received the **Outstanding Graduate for Service** award, given to one student across the entire College of Engineering for outstanding community service and contributions.

**Research and Publications**

> Bachelor's Thesis: *A Recipe for Game Development Assignments in CS2*

> Master's Comp. Exam: *No Silver Lecture: Essence and Accidents of Computer Science Education*

> ACM SenSys 2007: *SensorFlock: An Airborne Wireless Sensor Network of Micro-Air Vehicles*

**Leadership Activities and Achievements**

- President, CU Game Developer's Club, 2007 - 2009, Officer since 2006, Member since 2005
    - Functioned as project manager, advisor, and mentor for student game development projects.
- Imagine Cup Software Design Invitational National Finalist 2008 & 2009, Regional Finalist 2007
- University of Colorado Engineering Fellow, 2007 – 2009
- Committee Member of CU Engineering Excellence Fund, helping to manage ~$400,000 in annual student grants, 2006 – 2009
- Chairman, CU Computer Science Undergraduate Advisory Committee, 2006 – 2009
- Treasurer, CU Student Chapter of the ACM, 2006 – 2007
- Lead a programming team to develop an educational gamelet, teaching object-oriented programming logic to students at the U.S. Air Force Academy in Colorado Springs.
- Team ranked 4th out of 52 in 2006 ACM Regional Programming Contest, ranked 1st out of ~15 locally
- University of Hawai`i 2003 Science Fair: Best in Category: Physics

### NASA, Atlanta GA— *NASA SHARP Apprentice*

June 2003 - August 2003

Apprenticed under Professor Stephen Ruffin in the field of Computational Fluid Dynamics at Georgia Tech.

Co-authored *Validation of the NASCART-GT Flow Solver*, documenting our experiments with NASCART-GT validated against published airfoil data.

## Presentations

**CTO School**, techniques for scaling servant leadership.

**Strange Loop 2017**, lightning talk on spotting Software Canaries.

**Rust NYC 2019**, lightning talk on Rust + WebAssembly; full-length talk on HASH's technical architecture

**Tech Talks,** monthly throughout most of my career at Fog Creek, topics ranging from UX design psychology through programming languages.