Eric S. Crosson
2028 E Ben White Blvd #240-4104 Austin, TX 78741
(360) 820 - 8196 · esc@ericcrosson.com · github.com/ericcrosson

Interests

- Making complexity approachable
- Type theory, static analysis, functional programming, immutability, formal verification, technical writing
- Reproducible research, builds, and deployments

Qualifications

- Expertise with TypeScript, Node.js, Unix, Docker, Bash, GNU Make, git, Lisp, LaTeX
- Familiar with Rust, Kubernetes, AWS, Terraform, NoSQL, Go, C/C++, Python, Ruby, Haskell, TLA+, ACL2
- Looking forward to deeper mastery of Nix, WebAssembly

Recent Work Experience

BitGo – Engineering Manager, Internal Tools (2021 - Today)

- Created microservices build system, scaling 30 engineers to 250, 5 services to 72, reducing build time 98.5%
- Created api-ts for type- and runtime- safe APIs, reducing production issues by 97% over 1 year

BitGo – Senior Software Engineer, Prime (2020 - 2021)

- Created risk-management engine for margin trading in Go, increasing trade volume 100x
- Integrated trade engine with 4 add'l liquidity providers, increasing limit order-book depth 68% over 100 bps
- Introduced functional programming in TypeScript (fp-ts), now used on 6 teams

Strong Roots Capital – Chief Technology Officer, Founder (2018 - Today)

- Created platform for quantitative research and execution of systematic trading strategies
- Automated regime-dependent strategies for providing liquidity, trend-following, and mean-reversion
- Functional programming in TypeScript/Rust microservices on AWS using immutable infrastructure-as-code

ShoreTel – Embedded Software Engineer (2016 - 2018)

- Architected next-gen embedded C++ phone firmware, eliminating race conditions during boot
- Created custom Linux distribution for in-house hardware with yocto, eliminating 1-day exploits
- Created on-premise GitLab & CI cluster with ansible & docker, reducing CI execution time by 96%

IBM – Cloud Infrastructure Engineer (2015 - 2016)

- Developed public API for customers to provision and manage OpenStack cloud resources
- Scaled with 60% customer growth and 400% increase in managed servers, using Python and OpenStack

Intel – Pre and Post Silicon Validation Engineer (2014 - 2015)

- Created signal analysis tool for 3rd party DHCP RTL in Lisp, accelerating integration timeline by 15%

Centaur Technology – Design & Performance Verification Engineer (2013 - 2014)

- Invariant-based verification of multi-core PSE-36/PAE caching over 3 major architecture releases in Ruby

---

Educational History

- **University of Texas** Bachelor of Science in ECE (Computer Architecture and Embedded Systems), May 2016