

SHANE TROTTER

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WORK EXPERIENCE

Stealth Startup

Principal Engineer

Lafayette, IN

Jul 2021 - Jan 2022

- High performance network analytics and information security system design
- Written primarily in Golang for backend, ES6/CSS3 frontend

Lumen Technologies

Lead Software Engineer

Broomfield, CO

Apr 2020 - Jul 2021

- Ruby on Rails for multiple applications (4.x, 5.x)
- Golang for scalable big data analytics pipelines and several other back-end systems.
- DBA, developer and maintainer of PostgreSQL, MySQL, Redis, RabbitMQ, and Kafka
- Python (primarily in the context of SaltStack)

Independent Contractor

Lead Software Engineer

Broomfield, CO

Aug 2019 - Feb 2020

- Software architecture and development lifecycle from start to production deployment and scaling
- Languages primarily used: NodeJS (ES6), Golang, TypeScript, Ruby, Python and Solidity for Ethereum blockchain development

Charter Communications

Senior Software Engineer/Architect contractor

Denver, CO

Feb 2019 - Jul 2019

- Big data analytics sitting on Hadoop clusters
- Architecting and utilizing GraphQL APIs using Apollo and TypeScript
- NodeJS back-end development with Redis, MongoDB, PostgreSQL
- Scala development for utilizing Spark with Spark Streaming for analytics pipelines

Cubeform, Inc

Engineering Director

Denver, CO

Jan 2018 - Feb 2019

- Web3j and web3.js development for the Ethereum blockchain
- Solidity and OpenZeppelin for writing and publishing smart contracts
- Integrating Go, ES6 together to combine smart contracts with IPFS
- Writing SGX enclaves to ensure secure execution environments using Intel technology in C
- Implemented ERC20 token standards on thousands of Bitcoin ATMs worldwide

Lumen/CenturyLink/Level 3 Communications

Lead Software Engineer/Architect

Broomfield, CO

Sep 2014 - Sep 2018

- Lead developer/architect of a big data analytics time series cluster using Hadoop, Kafka, Spark, Cassandra, HBase, OpenTSDB, KairosDB, Grafana, and Go microservices
- Responsible for optimized schema development between SQL, HDFS, HBase, and Cassandra
- Lead developer/architect over configuration management databases/front-ends using Rails 5, PostgreSQL 9/10, and RSpec. 99% Code coverage achieved including the API
- Lead developer/architect over a monitoring/alerting/analytics system covering tens of thousands of bare metal servers globally using distributed processing pipelines, Redis, Ruby, Rails, RabbitMQ, SNMP, Kafka, OpenTSDB, REST APIs. This pipeline/application normalized data from 15+ subsystems and was required to have 99.999% availability

- Author of a patent to automate network device configuration using a custom Ruby domain specific language (DSL) with multi-threading over Serial-over-LAN interfaces. Patent available here: <https://patents.google.com/patent/US20170237619A1/>
- Responsible for technical interviews of Ruby and Rails developers
- Migrated old systems to scalable clustered solutions, including RabbitMQ to Kafka conversion to handle millions of events per second

Mondo Robot

Senior Web Developer

Boulder, CO

Oct 2013 - Apr 2014

- Lead developer on Canon's real-time video-compositing engine for Christmas promotions using C++, Rails, ImageMagick, FFMpeg, PostgreSQL, Amazon EC2, with Facebook integration
- Senior developer on the Michael J Fox research platform to help cure Parkinson's disease using Rails, PostgreSQL and many other ruby related technologies including Redis for queuing
- Lead Developer of ZenPlanner.com
- Ported websites to Rails for Winter Park Resort
- Responsible for interviewing and approving new developers as well as mentoring new technologies

Tribune Company

Team Lead

Orlando, FL

Apr 2011 - May 2013

- Ported from python/flask, scaled, extended, and implemented TDD around an HTML5 responsive photo gallery application for 8+ Tribune news properties, leveraging Rails 3.2, jQuery, bootstrap, Akamai, and Tribune's custom image/web services with RSpec for automated testing
- Lead developer/architect for elections coverage software (front and back end) from national results down to precinct level, including amendments and live-map development assistance using jQuery/raphael.js/JSON web services
- Performance optimization for scaling to millions of hits using various technologies/methods including Akamai
- Solutions architect responsible for documenting entire application design before development including schema design, network architecture, mockups, sequence diagrams, etc
- Responsible for IT property/company acquisitions, documenting and auditing applications for acquisition
- Implemented test-driven development methodologies and continuous integration for the team

SKILLS

Programming languages:	Ruby, Go, ES6 (JavaScript), TypeScript, Java, Scala, Solidity, Python
Software dev. lifecycles:	Unit testing, Docker, Gitlab, Github, Jenkins, Continuous Integration
Data visualization:	Grafana, HTML5, CSS3, Bootstrap, Semantic UI, D3.js, NVD3

AWARDS

#1 Employee at Level 3 Communications

Jeff Storey (CEO)

Admin, architect, and developer of the largest big data pipelines in the company at the time. 2016

Systems and Methods Patent

USPTO

Designed a custom language using meta-programming in a domain specific language, patent available here: <https://patents.google.com/patent/WO2017142599A1/en> 2020

EDUCATION

ITT Tech

Associates of Applied Science Web Development *GPA: 3.96*

Birmingham, AL

Oct 2002 - Oct 2004