

Alexander Tsankov

CONTACT

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SUMMARY

My most important skill as a developer is *focus*. I'm intrigued by how a technology solves a real problem, and strive for mastery.

EDUCATION

University of Colorado, Boulder
B.A. Computer Science, Philosophy 2016
GPA: 3.63/4.00
Dean's List - Three Semesters

SKILLS

Programming

Python
Go
Javascript
Elm
BroScript

Systems

Bash
Docker
Serverless
AWS
GCP
Infrastructure as Code
Kubernetes
Intrusion Detection Systems (IDS)
Continuous Integration
CDN

Web Development

Ruby on Rails
SQL (Aurora, Postgres)
NoSQL (Mongo, Rethink)
Flux Architecture
Chatbots

Blockchain

Ethereum
Monax
Solidity
Geth
Truffle
Web3

EMPLOYMENT

Workiva

Infrastructure and Reliability Engineer

Currently New York, NY
2016 - Current

Focus: *Testing infrastructure that properly scales to meet fluctuating demand.*

Built internal tools in Go to achieve a stateless, totally elastic Continuous Integration system and leverage AWS infrastructure.

- Utilized serverless execution (AWS Lambda, Codebuild) for maximum scalability.
- Use of "infrastructure as code" (Cloudformation) for proper versioning and reliable deployment.
- Leveraged containerization (Docker, ECS) for container building and test running.
- Maintained developer sanity, and maximized performance by creating a front-end in a functional language (Elm).

Summer Intern

Boulder, CO
Jun/2015 - Aug/2015

Focus: *Breaking core messaging functionality out of a monolith into a high performance microservice.*

Worked to create a scalable RESTful microservice to handle mail notifications and analytics.

- Services were written in Go and deployed to Google App Engine.
- Crafted complex REST requests to internal and external APIs.

Google

DevOps Apprentice (20/hrs a week)

Denver, CO
2015 - 2016

Focus: *Leveraging machine learning to automate repetitive logistical communication.*

Supported the Google Global Cache content delivery network (CDN).

- Built products for greater system automation utilizing in-house workflow engines.
- Designed and built a machine learning service to automate communication with international ISP partners.
- Worked with an international development team based in three time zones.

CU Boulder's "Next Generation Networks" Lab Group

Student Researcher (part-time)

Boulder, CO
2014 - 2016

Focus: *Reliably testing script deployments to an Intrusion detection system.*

Supported Prof. Eric Keller and his "Next Generation Networks" lab in the development of:

- A software defined network (SDN) controller module, to integrate with the Bro intrusion detection system (IDS).
- A Continuous Integration framework for Bro IDS which I presented at an ACM workshop demonstrating its potential as a virtualized network function.
- Published multiple papers, and was invited to present at two international conferences.

ioSemantics

Summer Intern

Golden, CO
Jun/2014 - Aug/2014

Focus: *Building an understandable frontend around an esoteric language parser.*

Worked on a project to integrate a Prolog language parser with a custom IDE.

- Developed in Java with the Eclipse RCP framework. I focused on data visualization with SWT graphics, and made sense of obscure Prolog programming paradigms.

University of Colorado, Network Security Office

Student Assistant (part-time)

Boulder, CO
2013 - 2015

Focus: *Monitoring suspicious behavior on a large research network.*

Worked to secure a 50,000+ host network and manage its security infrastructure.

- Used Bro IDS for network monitoring.

INDEPENDENT PROJECTS

Ethereum Smart Contract Development

- Experience creating Solidity smart contracts.
- Helped improve a simplified Makefile for streamlining private Geth deployments.
- Deployment of a Monax private chain to an auto-scaling Kubernetes cluster.

cufcq.com

Co-created and maintained an open-source Ruby on Rails site (2,000+ users/month) that summarizes and visualizes CU

Boulder professor evaluation statistics. This project involved:

- Scraped and cleaned large amounts of data making it accessible for programmatic consumption.
- Managed deployment of a RoR app in multiple dev environments.
- Led a multi-disciplinary team of five students for a senior project intended to genericize data-gathering across departments.

Hackathons

Money20/20 - Proof of concept phishing incentivization system that tied responses directly to monetary transactions.

Coinorado - SMS-based Bitcoin transfer system for interaction with Bitcoin from low-end "dumb" phones.

PenApps XIII - Built a web app that utilized machine learning to predict blood sugar spikes in diabetic patients.

RECOGNITIONS

Published on HackerNoon

Feb/2017

2K+ views on "Dealing with a nasty AWS Billing Surprise: Beware the defaults."

Invited to Present at NFV World Congress (San Jose) - Association for Computing Machinery

Apr/2016

Matthew Monaco; Alex Tsankov; Eric Keller. Taking the Surprise out of Changes to a Bro Setup. 6th ACM Conference on Data and Applications Security and Privacy (CODASPY-2016). New Orleans, LA.

DePauw Undergraduate Ethics Symposium - Prindle Institute of Ethics, DePauw University

2015

Invited to discuss and present The Ethical Automaton, a paper about the ethical issues surrounding autonomous vehicles.

Cisco Certified Network Associate (CCNA)

2010