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

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
Boulder, Colorado
Infrastructure and Reliability Engineer — 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 — 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
Denver, Colorado
DevOps Apprentice — 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.
- Built and maintained a machine learning service to automate communication with remote ISPs.

CU Boulder's "Next Generation Networks" Lab Group
Boulder, Colorado
Student Researcher — 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.

ioSemantics
Golden, Colorado
Summer Intern — Jun/2014 - Aug/2014

Focus: Building an understandable frontend around an esoteric language parser.
Worked on a project to integrate an Prolog language parser with a custom IDE.

- Developed in Java with the Eclipse RCP framework. I focused on UI creation, data visualization with SWT graphics, and general UX.

University of Colorado, Network Security Office
Student Assistant — 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.
- Built and shared a simplified Makefile for private Geth deployments.
- Deployment of a Monax private chain to an auto-scaling Kubernetes cluster.

cufcq.com
Co-created and currently maintain an open-source Ruby on Rails site (2,000+ users/month) that summarizes and visualizes CU Boulder professor evaluation statistics. This project involves:

- Scraping and cleaning large amounts of data.
- Managing deployment of a RoR app in multiple environments.

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