Alex Tsankov

CONTACT

✉ tsankov.jobs@gmail.com
☎ 720-837-8697
📍 New York, NY
in antsankov
○ antsankov

EDUCATION

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

SKILLS

PROGRAMMING
Python
Java
Go
Javascript
Bash

SYSTEMS
Linux
AWS
GCP
Jenkins (CI/CD)
Terraform / Cloudformation
Kubernetes (EKS & Helm)
Intrusion Detection Systems
Continuous Integration
Docker
Content Delivery Network
IAM (Identity)
Load Balancer (Nginx / Cloudflare)
DNS
Networking
Git
Wireshark
Software Defined Networking

WEB DEVELOPMENT
Django
Express.js
MongoDB (NoSQL)
PostgreSQL (SQL)
Chatbots
REST

MISC
Ethereum
Sales Engineering
Web3.js
Cryptography
Writing
Cold Storage Techniques

SUMMARY

My most important skill as a developer is *focus*. I'm intrigued by how scalable technology and data solves real human problems, and strive for mastery.
Distributed Systems, Continuous Integration, Cloud, Scaling, DevOps, Security.

EMPLOYMENT

Chainalysis
Software Engineer (Data)
New York, NY
2019 to Current

Focus: Software and Data. Building anti-money laundering / compliance tools for use by Law Enforcement and Institutions.
Software Engineer tasked with expanding blockchain ingest infrastructure, and transitioning from on-premises to public cloud (**AWS**) deployments.
- Development of **Java modules** for use tracking illicit digital currency transactions (Used to analyze $100s of millions of activity)
- Built Jenkins CI pipeline to run 8+ hour weekly **data warehouse ETL** (extract/transform/load) jobs.
- **Kubernetes** and **Docker-izing** of production monolithic Java software.
- Developed rapid **continuous deployment** system for sanctioned entity information (stolen and seized funds).
- Experience working with **PostgreSQL** databases, focused on querying and deployment.
- Worked with sales to to customize software products for strategic clients.

Paxos
DevOps Engineer
New York, NY
2017 to 2018

Focus: Cloud and Security. Serving the speed and security needs of institutional exchange customers.
Performed DevOps work for a top-40 Bitcoin exchange, serving institutional and high-frequency clients.
- Designed and implemented **Kubernetes-based**, **high-reliability** infrastructure for post-trade settlement of stocks and metals.
- Orchestration of **EC2** clusters with strict SLAs.
- Onboarded clients using **FIX connections** for sub-millisecond **trade execution**.
- Created strategies for high-security private-key storage and exchange security.
- Secured production infrastructure using **SSO** and AWS **IAM** to standardize account management.
- Experience working with **Hashicorp Vault** for secure secret management in multiple deployments.

Workiva
Cloud Infrastructure Engineer
Boulder, CO
2015 to 2017

Focus: Infrastructure and Cloud. Testing infrastructure that properly scales to meet fluctuating demand.
Built internal tools in Go to achieve a stateless, totally elastic and stateless **Continuous Integration** system.
- Utilized serverless execution (**AWS Lambda** and **Codebuild**) for maximum scalability.
- Use of "infrastructure as code" (**Cloudformation**) for proper versioning and reliable deployment.
- Leveraged containerization (**Docker, EKS**) for container building and test running.
- Maintained developer sanity, and performance by creating a front-end in a functional language (**Elm**).

Google
DevOps Internship
Denver, CO
2015 to 2016

Focus: DevOps. Leveraging machine learning to automate repetitive logistical communication.
Supported the Google Global Cache **content delivery network** (CDN).
- Automated remote hardware replacement utilizing Google **proprietary workflow engine**.
- Designed and built a **machine learning service** to automate communication with international ISP partners.
- Worked in a data-center test setting on **network profiling** and **physical server installation**.

CU Boulder's "Next Generation Networks" Lab Group
Researcher (part-time)
Boulder, CO
2014 to 2016

Focus: Research. 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. I presented at an ACM workshop demonstrating its potential as a virtualized network function.

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PROJECTS

Commonwealth Project - https://commonwealth.gg
Designed and created a smart-contract based savings fund to provide unemployment insurance for members of the gig economy and live streaming community, with a focus on global scaling and cross-border financial access.
- Mainnet smart contract ecosystem has had around 13,000 ETC (over $100,000) at its peak with hundreds of global participants, and paid out over $15,000 in dividends to distinct users.
- Largest smart contract on the Ethereum Classic (ETC) blockchain.

CU FCQ Visualizer
Co-founded 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:
- Scraping and cleaning large amounts of data to make it accessible for programmatic consumption.
- Managed deployment of a Rails app in multiple dev environments.

Hackathons
- EthNY 2019 - Built and deployed a SHA3 Proof of Work testnet for Ethereum. Live-streamed the 36 hour event along with interviews.
- Money 20/20 - 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.
- PennApps XIII - Built a web app that utilized machine learning to predict blood sugar spikes in diabetic patients.

RECOGNITION

Medium Articles - More than 40,000 views   2020
Technical and instructional articles achieve more than 36,000+ views, with 13,000+ complete reads, 36% fully-read.

Ethereal · Art Installation featured on Vice News   2018
Programmed "HODLism: Initial Soul Offering" an art project that was featured on Vice News.

Published on HackerNoon   2017
10.5K+ 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   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
Expired

Media Engagements
Federal Bar Association National Convention (New York, NY), League of Blocks (Taipei, Taiwan), NFV World Congress (San Jose, CA), Ethereum Classic World Summit (Vancouver, Canada), Blockchain Developers Meetup (Sofia, Bulgaria), Roll Call (Washington DC)

INTERESTS

Urban Agriculture -- Particular focus on pickling different locally-grown vegetables.
History -- Enjoy learning about and traveling to historically relevant places around the world.
Live Music -- Exploring instrumental concerts ranging from Contemporary Jazz, to Funk, to Classical.