

Staff software engineer / Staff research scientist

Experienced computer scientist specialized in cloud computing, operating systems and machine learning. Looking to make a significant impact at an early stage venture.

Core skills

Systems: Linux, Kubernetes, Docker, AWS, GCP, Azure
Programming: Golang, Rust, C, C++, Python, Bash, CUDA

Management: Tech lead & engineering strategies
Analytics: SQL, PromQL, Splunk

Work experience

Astronomer, San Francisco, CA. *Series C. ~200 employees. Builds managed Apache Airflow services.*

Senior Software engineer**10/21 - 04/23**

- ❖ Scoped and designed backend features for effective Airflow management.
- ❖ Revamped our APIs to seamlessly integrate AWS/GCP/Azure and scale to hundreds of data planes.
- ❖ Implemented efficient resource allocation techniques to substantially reduce cloud costs.

Microsoft Research, Redmond, WA. *Private research laboratory.*

Research intern**05/19 - 08/19**

- ❖ Created a kernel-bypass network stack handling millions of requests per second.
- ❖ Contributed a new scheduling algorithm to mitigate head-of-line blocking at the microsecond scale.
- ❖ Contributed many experiments to the Demikernel project (PI: Irene Zhang).

Perspecta Labs, Basking Ridge, NJ. *Private Research Laboratory. 14,000 employees.*

Research intern**05/18 - 08/18**

- ❖ Built a Meta Experiments Controller to explore MANET scenarios parameter spaces.
- ❖ DARPA DCOMP project (PIs: Latha Kant, Alexander Poylisher).

Skopéo, Paris/Tunis, FR/TN. *Seed. E-commerce and fleet management solutions. ~20 employees.*

Head of QA**04/14 - 08/14**

- ❖ Designed and implemented an integration pipeline (git, mantis, AWS EC2) for a distributed team.
- ❖ Designed and implemented the QA process

Hedera Technology, Paris, FR. *Seed. ~12 employees. Builds a multi-cloud IaaS platform.*

Software engineer**01/12 - 01 /14**

- ❖ Integrated vSphere and OpenStack to our multi-cloud IaaS platform.
- ❖ Developed a rule engine for provisioning VMs dynamically.
- ❖ Integrated our system with Windows and MS System Center.
- ❖ Deployed and scaled our system to production environments.

Education

Ph.D in Computer Science. University of Pennsylvania.

2016 - 2021

- ❖ Service Boosters: Library Operating Systems For The Datacenter (*Ph.D thesis*)
- ❖ Optimizing tail-latency for heavy-tailed datacenter workloads with perséphone (*SOSP'21*)
- ❖ Detecting Asymmetric Application-layer Denial-of-Service Attacks In-Flight with Finelame (*ATC'19*)

M.Sc in Computer Science. Duke University.

2014 - 2016

- ❖ Studying Recommender Systems to Enhance Distributed Computing Schedulers.