

Ruben Hakopian

ruben.hakopian@gmail.com

github.com/rubenhak

linkedin.com/in/rubenhak

resume.rubenhak.com

(408) 306-3410

San Francisco Bay Area

Software architect/engineer with over 20 years of experience building GenAI solutions, next-gen products, and distributed systems in startups and large enterprises, utilizing the latest technologies from the open-source, cloud-native, and AI/ML stacks.

Specialties

- ✓ GenAI
- ✓ SaaS
- ✓ PaaS
- ✓ Scalable distributed systems
- ✓ Microservices
- ✓ Self-healing management systems
- ✓ Model, data and meta driven systems
- ✓ Policy & intent based systems
- ✓ Rules engines
- ✓ Eventual consistency
- ✓ Multithreading
- ✓ Code generating robots
- ✓ Kubernetes
- ✓ Cloud-Native

Experience

VMware / Broadcom, Dev Lead / Architect

Jul, 2023 - Present

Led the GenAI Intelligent Assistant for VMware vDefend Lateral Security (Project Cypress) from inception, POC, TechPreview to GA. <https://youtu.be/651...>

- Started at VMware OCTO, AI xLabs to lead the Security AI Assistant project.
- Designed and built an interactive chat-bot using RAG (retrieval augmented generation).
- Designed and implemented a multi-tenant SaaS architecture, ensuring scalability and robustness.
- Coordinated effectively across engineering, product, and marketing teams to ensure alignment and successful delivery.
- Managed and oversaw all engineering activities to meet project goals and deadlines.
- Built standardized frameworks and tools to boost overall team productivity.
- Transitioned between OpenAI and GCP Vertex AI Gemini LLMs, AWS and GCP.
- Built CI and GitOps CD pipelines and onboarded through CloudOps processes.

Used: Python, LangChain, Vertex AI Gemini, OpenAI, GCP, PostgreSQL, PGVector, RabbitMQ, AWS, ArgoCD

Kubevious, Founder

Oct, 2019 - Jun, 2024

Created Kubevious - an open-core SaaS that helps running modern Kubernetes applications without disasters and costly outages by detecting and preventing configuration errors and violations of best practices. <https://github.com/kubevious/kubevious>

- Started the project, launched the company, and built the team
- Discovered and validated the product need
- Designed and implemented SaaS microservice applications
- Created a programmable rules engine and public library which keeps misconfigurations and violations of cloud-native best practices away from Kubernetes clusters and apps
- Build four products based on the common application framework: SaaS, open-source, portable, and CLI
- Open-source project collected ★ 1,600 stars on GitHub and 📦 591K downloads

Used: Node.js, TypeScript, MySQL, Redis, RabbitMQ, Kubernetes, AWS, GCP, Docker, ReactJS, CNCF projects

Berlioz, Chief Scientist

Jan, 2017 - Oct, 2019

- Created Berlioz - A robotized SRE to achieve a PaaS-like experience within your own public cloud account. Enables teams to deploy microservices in a secure environment rapidly.
<https://github.com/berlioz-the/berlioz>
- Designed a cloud-agnostic declarative DSL to describe microservices dependencies between each other and other managed cloud services such as SQL, Object Storage, Message Brokers, etc.
- Implemented continuous synchronization of desired microservices state to AWS or GCP.
- Achieved sub-5-minute Hipster Microservices Demo application deployment to a brand new AWS (or GCP) account.

Used: Node.js, TypeScript, Python, Go, MySQL, Redis, RabbitMQ, Kubernetes, AWS, GCP, Docker, ReactJS, CNCF projects

- Fun project - Quantitative trading algo bot. Trading daily since 2017.

Used: C#, .NET, AWS, Lambda, InteractiveBrokers APIs

Cisco / Insieme Networks (acquired), MTS

Jul, 2012 - Jan, 2017

Joined the early team of Insieme Networks to build Cisco ACI - application centric SDN solution.

<https://newsroom.cis...>

- Owned, designed, and implemented the observability platform.
- Created data collection framework, processing, and analysis infrastructure.
- The entire org uses that framework to report metrics.
- Created Troubleshooting Wizard - a friendly tool to identify and repair connectivity issues with L4-L7 services.
- Created service to Cisco ACI network policy extension and enforcement to the public cloud.
Patented.

Used: C++v11, Python, Java, SQLite, STL, Boost, D3.js, Cisco ACI APIs, Modeling+CodeGeneration

Harmonic, Staff Software Engineer

Jun, 2009 - Jul, 2012

Specializes in the development of video delivery infrastructure for television and video services.

- Worked on video network management system

- Designed and implemented rules, language, and interpretation engine

Used: Windows, C#, .NET 3.5, WPF

Mattson Technology, Software Consultant

Jun, 2008 - May, 2009

Company designs and manufactures semiconductor wafer processing equipment.

- Built next generation controller and UI for wafer processing equipment.

Used: Windows, C#, .NET 3.5, WPF, C++, TCP, Modeling+CodeGeneration

Memco, Software Engineer

Jan, 2005 - Dec, 2007

Company specializes in 3D graphics and visualization.

- Virtual Reality Area - distributed system for online 3D interaction application like Second Life

Used: Windows, C#, .NET 3.0, WPF, MS SQL, TCP/UDP

- Bipedal 3D Character Studio

Used: C++, STL, OpenGL, GLSL

- 3D Rendering Algorithms.

Used: Paper, Pencil, Imagination, C++, OpenGL, GLSL

Unified Software, Software Engineer

Oct, 2003 - Jan, 2005

IKAR - solution for taxi fleet management

Used: Windows, C#, .NET 2.0, .NET Remoting, MS SQL, Borland Delphi

Freelance

Oct, 2001 - Oct, 2003

Implemented projects in a team of 3

- Store inventory management and POS terminal

Used: C#, .NET 1.1, MS SQL

- Online gaming portal. Supported Chess & Backgammon

Used: Linux, Java, JSP, Java Applet

- Windows based card games: Blackjack, Poker

Used: C++, Win32, GDI+, COM, Visual Studio 6.0, Borland Delphi

Skills

Languages ✓ Python ✓ TypeScript ✓ Java ✓ C# ✓ C++ v11 ✓ Go

Web ✓ JavaScript ✓ React ✓ jQuery ✓ HTML ✓ CSS ✓ WebSocket

Frameworks ✓ FastAPI ✓ Node.js ✓ Express.js ✓ .NET (up to 4.5) ✓ STL

✓ Boost

AI ✓ GCP VertexAI Gemini ✓ OpenAI ✓ LangChain ✓ RAG

Cloud ✓ GCP ✓ AWS

Runtimes ✓ Kubernetes ✓ Docker ✓ Serverless ✓ OpenShift

CNCF Stack ✓ Traefik ✓ Kong ✓ Istio ✓ Calico ✓ CertManager

Relational ✓ PostgreSQL ✓ MySQL ✓ SQLite ✓ MS SQL
NoSQL ✓ Redis ✓ MongoDB ✓ Cassandra
Brokers ✓ RabbitMQ ✓ Kafka
AWS ✓ DynamoDB ✓ Aurora ✓ RDS ✓ S3 ✓ Kinesis ✓ SQS ✓ Lambda
✓ EKS
GCP ✓ GKE ✓ Functions ✓ Pub/Sub ✓ Storage ✓ SQL
CI/CD ✓ GitHub Actions ✓ GitLab ✓ CodeFresh ✓ TravisCI ✓ CircleCI
OS ✓ Linux ✓ MacOS ✓ Windows

Education

Stanford University

Enterprise Sales & Marketing

Institute for Informatics and Automation Problems, Armenia

Ph.D., Computer Science

- Researched algorithms of interpretation of strongly typed functional programming languages.
 - Developed a universal system of interpretation.
-

Yerevan State University, Faculty of Informatics and Applied Mathematics

M.S., Computer Science

Yerevan State University, Faculty of Informatics and Applied Mathematics

B.S., Computer Science