

Rimon Mikhael

CLOUD AUTOMATION & PLATFORM ENGINEER — AUTOMATION · ORCHESTRATION · HPC · MLOPS

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SUMMARY

Engineer between ops and software: I turn manual infrastructure operations into integrated application suites — dashboards, APIs, billing engines, and event-driven pipelines spanning VMware, AWS, Azure, enterprise storage, and HPC. Range from assembly and C to Python and full-stack, with a strong core background in machine learning. Currently pursuing completion of a master's degree; a university role with tuition support is the ideal fit.

EXPERIENCE

Children's Hospital of Philadelphia — Research Institute, Roberts Center for Pediatric Research

Automation & Orchestration Engineer · mostly remote · current

- Develop integrated application suites for research infrastructure — the **notification system**, **reporting apps**, and the **Cirrus dashboard** — bound together over REST APIs into one administration core spanning vCenter, AWS, Azure, Pure Storage, Isilon, Starfish, HashiCorp Vault, Dell ECS, Microsoft 365, and HPC.
- Run **ServiceNow + Cirrus (custom front end) over vRO/vRA** as the orchestration backbone for the request catalog: Isilon fileshare creation, ECS IAM & S3 buckets, Vault namespaces and secrets, AWS account creation, Kubernetes clusters on AWS and VMware TKG, Globus & VDI access, CHOP-built Elasticsearch apps, and VM provisioning.
- Built end-to-end provisioning pipelines deploying **VMware VMs, Azure VMs, and AWS EC2** from a single automation flow; integrated with Horizon VDI infrastructure; workflows call AWS Lambdas, and AWS Config triggers webhooks across the stack.
- Maintain automation and administration of **AWS Control Tower**: cross-account STS at scale, landing-zone checks, drift detection with clean true/false results for orchestration.
- HPC: Slurm usage/efficiency/cost reporting; **custom RHEL VDIs deployed as user shells** (sparing login nodes) with a purpose-built Docker container for app deployment and a custom wrapper for the greedy quota-accounting algorithm — provisioned via vRO, requested through Cirrus/ServiceNow, with **PI-grant approvals via the Workday API**.
- Billing & chargeback platform (Django): owner-mapped PDF bills for fileshares, VMs, servers, and HPC; dashboards exposing unattributed costs and CMDB gaps.
- Storage automation: quota/share/ownership reporting on Isilon, live-vs-CMDB/Starfish diffing, and safe decommissioning workflows.
- Currently integrating a research **wearable device into an MLOps pipeline** with a dashboard for the gathered data.

PERSONAL PROJECTS

- **The Daisy suite** — eight self-hosted local-AI homelab apps (research workbench, voice notes, media discovery, task-swarm orchestration, learning archive, audiobook narration, Neo4j knowledge graph, DGX model-ops dashboard); FastAPI/Node, vLLM, Neo4j, Docker.
- Systems repos: MapReduce in C (gRPC) and Go (Kubernetes), multithreaded gRPC store, QEMU-API mini-hypervisor, SDN on Ryu, NFV concepts, OpenMP/MPI cache simulation, ML for trading. github.com/merovingie

SKILLS

Languages	Python · C · Go · JavaScript/TypeScript · Bash · PowerShell · SQL · x86 assembly
Cloud & IaC	AWS Control Tower · Organizations · Lambda · EventBridge · IAM/STS/S3 · CloudFormation · Azure Monitor · Logic Apps · Terraform
Platform	Django/DRF · REST · gRPC · Kubernetes (EKS, TKG) · Docker · CI/CD · ServiceNow integrations · Workday API · MLOps
Infrastructure	VMware vCenter · vRA/vRO/Aria · Horizon VDI · Isilon/OneFS · Pure Storage · Dell ECS · Vault · Starfish · Slurm/HPC · RHEL/Linux

EDUCATION & GOAL

Graduate studies in computer science — actively seeking to complete a master's degree; open to university roles with tuition support, relocation welcome.