

Ronak (RB)

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Engineer with architect, frontend, backend, AWS, remote, consultant, and security experience and worked in adtech, security, gambling, and IoT industries (details available upon request)

Work

Your company (This Year to Forever) - Remote

- I will solve problems for you. [Hire me](#).

RB Consulting LLC - CEO / Principal Staff (2021 - Present) - Remote

- Consulted for Fortune 500 clients, midcap, and small companies
- Helped manage 100s of open source terraform modules in terraform-aws-modules and cloudposse
- Everything, absolutely everything in terraform (infrastructure as code)
- Experience getting into Amazon's Marketplace by using AWS Control Tower Account Factory for Terraform
- Setup from the ground up: SAML, AWS SSO with Okta, Gravitational's Teleport, AWS Client VPN, Spacelift (terraform automation), Datadog, OpsGenie, private/public R53 split-horizon, Cloudtrail, AWS WAF, delegated IAM roles, AWS Shield, GuardDuty
- Configured and maintained EKS (with and without bottlerocket) and ECS Fargate
- All helm releases with IRSA roles built with terraform using the helm provider
- Used tooling such as tflint, tfsec, checkov, infracost
- Tested terraform using terratest and Open Policy Agent rego policies
- Spearheaded architectural design decisions (ADRs) in repos and related mermaidjs diagrams

Security & Adtech - SRE / DevSecOps / DevOps (2019 - 2021) - Remote

- Lead a team to implement a zero trust solution to replace a costly VPN
- Greatly reduced manual work by automating items by first documenting manual work, creating tickets, and tackling items
- Automated packer Golden AMIs using Buildkite pipelines
- Worked with IT to setup and migrate employees to AWS SSO with Okta integration
- Reduced costs and added governance using [CloudCustodian](#)
- Installed [Atlantis](#) on fargate for terraform pull request automation
- Secured static jekyll company blog using cloudfront, private s3, with lambdas to set secure headers
- Gave presentations across teams to improve infrastructure best practices
- Modularized terraform and leveraged the registry to follow DRY principles across the organization
- Expanded documentation and least privilege to reduce Ops requests from 10/day to 10/week
- Mitigated several high level security incidents
- Deployed services in Kubernetes using Helm charts
- Built services in typescript / nodejs using Hapi

DFS - SRE / DevSecOps / DevOps (2018 - 2019) - In Office and Remote

- Brought [CloudCustodian](#) as a governance tool
- Used Akamai CDN and AWS WAF to protect servers from bot traffic and DDoS attacks
- Built microservices using AWS's ALB, TG, and lambdas using python and terraform
- Coded GAppsScript to grab deployment history from OctopusDeploy using a Subscription and webhook
- Advised dev teams on testing locally, decreasing feedback loop, improving services, improving pipelines
- Wrote a lambda to forward Slack requests to another lambda allowing creation of many slack commands

- Improved patching process of AMIs by automating Rapid7 InsightVM scans
- Created VM templates for Windows and Linux in datacenters using Packer
- Monitored microservices in ASGs and ECS docker containers using Datadog and ELK stack dashboards
- 3rd party upgrades, Chef, reviewing PRs, daily requests from devs, blue/green and rolling deploys

Adtech & Sales CMS - DevOps / DevSecOps / Full Stack Engineer (2016 - 2018) - In Office and Remote

- Architected and built a multi-million dollar, highly scalable, and concurrent **Node.js** app using **koa** and **pm2** in only 8 weeks with 30% test coverage. The app handles over 150M req/mo and allowed our team and product to rapidly expand.
- Designed and helped build a proxy API for Sales written in Java **Springboot** with a TypeScript frontend
- Uncovered over 60 high severity issues in legacy apps by manual and automated testing using **Burp**, **w3af**, **sqlmap**, and custom scripts
- Containerized our apps in **docker** and in **Vagrant** VMs using Ansible to provision
- Setup local pre-commit hooks, built **Jenkins** CI pipelines to run unit tests and **static code analysis** tools to auto merge and auto deploy
- Load tested apps using apache bench, wrk, loader.io, jmeter, and blazemeter
- Designed and created a pre-buy app in jQuery, bootstrap, font awesome, **flask**, with docker deployment
- Maintained and improved upon a once complicated ETL left behind by a previous team
- Gave presentations on TDD (Test Driven Development) and CICD principles

Networking & Firewall - DevOps / DevSecOps / Automation Engineer (2013 - 2016) - In Office and Remote

- Implemented a scalable solution to test **ExtJs** frontend code using **Jasmine** tests via **Siesta**
- Built a remote python agent to act as a test runner and integrated results into a common database. Ran tests in Jenkins based on a commit trigger.
- Won an award for cost savings by creating a self correcting Smartsheet using **Smartsheet-Data-Tracker**
- Setup VMs using Packer using provisioners, veewee for iso automation, and deployed on vSphere and created local development environments using Vagrant
- Managed and monitored LDAP and Radius servers for network firewall authentication
- Wrote packet manipulation scripts using **Scapy** to circumvent IDS/IPS firewall software
- Scripted reproduction scenarios for **Heartbleed** and other security issues

IoT - Engineer (2011 - 2013) - In Office

- Created self healing mesh network for buoys that sends real time data and field tested in a boat
- Programmed custom **Arduino** boards in C++ to work with GPS and Digi modules
- Developed functions around **Yorick** legacy code written by **USGS** for the **EAARL** (Experimental Advanced Airborne Research LIDAR) project
- Trained USGS personnel via presentations on how to develop and build upon the EAARL project
- Read **LIDAR** (Light Detection and Ranging) papers under a PhD professor's tutelage to derive important variables for a radiometric calibration to generate light reflectance graphs

Skills

Open Source

- Won a company award for fixing a spreadsheet sync failure in **Smartsheet-Data-Tracker**
- npm package **terraform-plan-applier** to apply terraform with criteria
- Fixed a gzip issue with **pm2-logrotate** and added a time zone feature
- Device support for specific switches in **netmiko**, a **Paramiko** based SSH library
- Added a mobile friendly **pandoc_resume** and made its `Makefile` more modular
- Homebrew, choco, scoop support for tools I like such as **iam-policy-json-to-terraform**

- Contributed the `SourceAMICreationDate` to **Packer**
- Contributed to the terraform AWS provider

Personal Projects

- Built **Chrome extension manager** to install browser extensions using the cli
- Wrote **curltopy** to convert browser tools' network curl calls to python requests
- Completed a dockerized **weather app** challenge using Django
- Completed a **questionnaire app** challenge in Flask and jQuery

Languages

Python: I have worked with Python for years. I've created APIs in Flask and Falcon, written many scripts, lambdas, and built a Django app.

Golang: Contributed to Packer and Terraform AWS Provider projects.

Node.js & TypeScript: Built a scalable API using koa and **pm2** utilizing es7 features like block scoping and `async / await` and used mocha style jasmine tests to unit and integration test the app. Also lambdas and google scripts.

Java: Built a microservice using Springboot.

Dabbled: **D3**, Golang, Ruby, Bash, Kotlin and personal cloud (AWS and Azure) accounts. Envoy/Istio. Podman instead of Docker. Used gRPC and swagger for fun. I try to stay language agnostic / polyglot as much as possible.

Education

- Bachelor of Science
- AWS labs on **quiklabs** and **acloud.guru**
- Learned Kubernetes and helm using courses on **katacoda.com**