

Engineering Leader & DevOps Expert | coreygale@gmail.com LinkedIn: coreygale.com | GitHub: mechtron | Blog: corey.tech

# **EDUCATION**

## MCMASTER UNIVERSITY

BACHELOR OF ENGINEERING Apr 2013, completed with co-op

# SKILLS

#### **MANAGEMENT**

Mentorship • Team building • Recruiting • Cost reduction • Vendor relationships • Public speaking

#### **DEVOPS**

CI/CD • Monitoring • Alerting • Logging • Security • Developer enablement

#### **LANGUAGES**

Python • JavaScript • Ruby • Bash • C# • Embedded C • Assembly

#### **DATABASES & STORES**

MySQL • Postgres • MongoDB • RabbitMQ • Redis • memcached • Consul

#### CI & CD

Jenkins • GitHub Actions • GitLab • CircleCI • Drone CI

#### **CONTAINERS**

Docker • Kubernetes • Helm • EKS • ECS

#### **IAC & BUILD TOOLS**

Terraform • Terragrunt • Troposphere • Ansible • Packer • make • grunt

#### **METRICS & MONITORING**

Prometheus • Grafana • Looker • ELK (ElasticSearch, logstash, Kibana) • New Relic • VividCortex • PagerDuty

#### **AWS**

EC2 • EKS • ECS • ECR • Lambda • RDS
DynamoDB • ElasticCache • IAM •
CloudWatch • S3 • SNS • SQS • VPC

#### **IAAS**

DigitalOcean • Twilio.io • Mailgun.io

#### **BACKEND**

Django w/Django REST Framework • Node.js w/Express • dotnetcore w/Kestral • Nginx • Traefik • Ambassador

#### **FRONTEND**

Bootstrap • React • VueJS • KnockoutJS

# **EXPERIENCE**

#### **GUMGUM** | SENIOR ENGINEERING MANAGER

Jan 2021 - Present | Santa Monica, CA

- Oversaw the DevOps, Data Engineering and Business Informatics teams (8 engineers in 4 timezones) whose systems handle billions of Ad Events per hour and generate over 25 TB of data daily
- Directed cross-team initiatives to increase scalability and reduce overhead
- Tracked, policed and optimized cost by reserving capacity, adapting workloads to utilize spot instances, creating new tools to gain new insights and by working with finance to renegotiate vendor contracts
- Developed and deployed systems necessary to automatically calculate business KPIs, providing insights that new processes now depend on
- Maintained key vendor relationships and influenced 3rd party product direction to aid the needs of the business

## **GUMGUM** | DEVOPS MANAGER

Aug 2019 - Jan 2021 | Santa Monica, CA

- Led, mentored and managed a globally-distributed team of 5 talented DevOps engineers who were responsible for building, maintaining and operationalizing dozens of mission-critical systems at GumGum
- Revamped hiring process to analyze a wider range of technical skills earlier in the interview process, resulting in a shorter hiring loop and improved candidate experience
- Managed team priorities, meetings (story-pointing, retrospectives, demos) and roadmaps. Defined, documented and socialized team processes.
- Conducted weekly 1-on-1's with individual contributors
- Addressed gaps in security by creating a feedback loop to track and prioritize security-related technical debt across all engineering teams

## **GUMGUM** | SENIOR DEVOPS ENGINEER

Aug 2018 - Aug 2019 | Santa Monica, CA

- Supported a diverse, highly-distributed (1000s of nodes) technology stack built around a low-latency Java application that handles > 20M RPM
- Designed and built AWS infrastructure for CV ML inference stack consisting of multi-environment Terraform IaC, automatic deployments and auto-scaling based on custom business and infrastructure metrics
- Designed reference architecture for introducing Kubernetes including new patterns for traffic routing with Ambassador and IaC packaging with Helm
- Created a tool (mechtron/ami-bakery) that enables idempotent AMI builds with Packer
- Active in public speaking: spoke at a joint webinar with Hashicorp/SpotInst and collaborated with CV scientist Greg Chu at the LA CV Meetup

## RING/AMAZON | SENIOR DEVOPS ENGINEER

Mar 2018 - Aug 2018 | Santa Monica, CA

- Amazon-aguired video doorbell company with over 5M connected devices
- Established organizational patterns for writing Terraform IaC. Wrote common module libraries for building repeatable Terraform implementations and enforcing process.
- Designed and built a custom blue-green deployment controller that enabled zero-downtime deployments and rollbacks of OpsWorks stacks
- Represented DevOps for a special project tasked with transitioning our systems, tools and processes into the Amazon ecosystem



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# PERSONAL PROJECTS

## **WEST LA DEVOPS MEETUP**

2019 - Present

- Bi-monthly technical Meetup hosted at GumGum HQ
- We provide industry updates and host tech talks from well-known industry experts

## **IMAGE CLASSIFIER | ML**

2018 - 2019

- App that provides live classifications of user-provided image links
- Tech stack: DRF, TensorFlow, Keras, ImageNet, Redis, MySQL, Nginx, VueJS, Kubernetes, Helm

# TABB | BACKEND & DEVOPS

2016 - 2018

- Wrote the backend system for an iOS app that keeps track of debts between friends
- Users create Tabbs using our app's convenient wizard
- Tabb backend automatically sends out reminders to debtors via SMS/email

## RADI-US | FULLSTACK

2015 - 2016

- Developed the server and single-page web app for an instant-messaging platform that connected its users in a special geolocalized chatroom known as the "radi-us"
- Users friended each other by tapping the usernames attached to messages from other nearby users
- Friends are able to privately message each other without the geofencing restrictions of the radi-us

# ENTREPRENEURSHIP

Recipient of \$25k Jumpstart grant from FedDev Ontario (2013) • Winner of Hamilton Startup Weekend 2013

# EXPERIENCE CONT.

## SIXT4/TRIPSTACK | DEVOPS ENGINEER

Mar 2017 - Mar 2018 | Toronto, ON

- Established core DevOps processes and patterns used to develop and deploy the business' core application
- Designed and implemented application infrastructure in AWS capable of accommodating massive fluctuations in API usage
- Built an ELK stack (ElasticSearch, Logstash, Kibana, Filebeat, Metricbeat) for tracking key business metrics in real-time
- Designed candidate interview process and take-home projects for certifying potential new hires

#### **TOP HAT | DEVOPS ENGINEER**

Nov 2015 - Mar 2017 | Toronto, ON

- Designed and implemented a variety of tools, services and processes that enabled devs to more effectively write, test and deploy new code
- Assessed new product features and recommended changes that improved system performance, scalability and security
- Audited monitoring coverage and created new metrics to improve visibility of critical back-end services
- Significantly reduced testing costs by migrating our test suite from the private cloud to a self-hosted solution that could cost-effectively scale
- Interviewed and evaluated technical abilities of engineering candidates

#### FIRMEX | DEVOPS ENGINEER

Dec 2013 - Nov 2015 | Toronto, ON

- Created core DevOps processes for a new B2B/B2C product specializing in secure large file transfer
- Validated new features against PM specification and assessed impact on product performance and security
- Pitched idea for a new product feature that was green-lit and developed by a special cross-functional team. Sales team was able to leverage the industry-first feature to win new deals.

## QUICKEE | Co-FOUNDER

Nov 2012 - Jan 2014 | Hamilton, ON

- Created a smartphone app (iOS & Android) that enabled our users to order food for delivery in under 30 seconds
- Led a team of five extremely driven individuals to design, validate and release the SaaS platform to delivery restaurants

# **BLACKBERRY** | RELIABILITY ENGINEERING SYSTEM DEVELOPER May 2011 – Aug 2012 | Cambridge, ON

- Designed and implemented a complex, yet robust software control system for world-class accelerated life test hardware
- Managed tests for unreleased BlackBerry devices. Optimized the project management workload by automating daily tasks with Python.

# MCMASTER UNIVERSITY | LEAP MECHATRONICS INSTRUCTOR Sep 2010 – Aug 2011 | Hamilton, ON

- Instructed an introductory course in Mechatronics for first-year McMaster Engineering students
- Designed a PIC-based robotics platform complete with custom PCBs