

# NABIL BARAKATI

Honours Computer Science | Business Option  
University of Waterloo



<http://nabil.xyz>



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## SKILLS SUMMARY

- Excellent software design knowledge of web-based systems
- Critical and analytical thinker with exceptional attention to detail
- Extremely efficient self learner with a passion for new technologies

## EDUCATION

**University of Waterloo**

Sept 2015 - Apr 2020

Waterloo, Ontario

- Strong understanding of effective and efficient algorithm design paradigms
- Experienced with database management systems and design methodologies
- Obtained fundamental knowledge of network architectures and protocols
- Functional understanding in building resilient, secure and scalable systems

## WORK EXPERIENCE

**Lime** | Software Engineer - Data Engineering

Sept - Dec 2019

San Francisco, California

- Fully architected and implemented new RBAC for Lime's Data Warehouse
- Eliminated 10000s of privilege duplication across role inheritance to ensure the principle of least privilege was upheld and to enhance security
- Developed Airflow jobs that trigger upon new schema creation which generates the required privileges based on requester and assigns them to user assigned roles
- Reduced On-Call hours designated to role management by 90%

**Lifion** | Infrastructure Engineer - Infrastructure

Jan - May 2019

New York City, New York

- Led the organizational shift to Canary Deployments through Kubernetes and Envoy
- Reduced operational cost by \$500k yearly (AWS resources, monitoring and engineering costs) by upgrading staging environment to use Canary Deployment
- Enabled engineering teams to rapidly prototype new features by establishing self-service pipeline parallelizing deployment of both production and canary services

**Athos** | Software Engineer - Data Processing

May - Aug 2018

Redwood City, California

- Developed network authentication web app for Athos Athlete Hub device which improved connection success rate by 30% and also greatly improved UI/UX
- Significantly enhanced security by developing a new access control layer restricting access to facilities' networks; preventing unauthorized access to restricted APIs
- Created granular logging system greatly increasing monitoring capabilities
- Reduced new client onboarding engineering hours by 90% through designing and implementing a pipeline involving several SQL scripts

**TribalScale** | Software Engineer - Web & Voice

Sept - Dec 2017

Toronto, Ontario

- Architected distributed cache that decreased load times by 5x for airmilessshops.ca
- Teamed up with AWS to enhance the integration between Amazon Pay and Voice to launch 1800-Flowers as one of the first voice apps to integrate with Amazon Pay
- Represented TribalScale as the "Voice Expert" to close a deal with RBC

**Capital One** | Software Engineer - Web & Infrastructure

Jan - Apr 2017

North York, Ontario

- Architected web platform infrastructure, serving over 1.5M users monthly
- Developed fully automated CI/CD pipeline. Included features such as rolling-back, archiving, cross-region replication & infrastructure initialization
- Successfully cut down production deployment times by 95% using AWS/Jenkins

## LANGUAGE EXPERIENCE:

C, C++, Java, Python, SQL, Node JS, Angular, Terraform, GraphQL, React

## TOOLS/Frameworks:

AWS, GCP, Kubernetes, Git, Jenkins, Docker, Ambassador, Envoy, Istio

## HIGHLIGHTS:

Web Development  
Automation  
Project Management  
Infrastructure  
Distributed Systems  
Networks  
Security

## SIDE PROJECTS:

### Reachr

Activity based social-network which allows students with busy schedules to easily coordinate meetups. Developed business plan & website

### Code Name Envio

A web and mobile application used for crowdsourcing data. Designed to allow users to report issues within their vicinity with the option of upvoting events of concern.

### Visual Diff

An open source tool that allows for visual testing. Determines the amount of change that took place and passes or fails automated tests accordingly. Caught the eye of my manager and was integrated into Capital One's release pipeline. Say goodbye to production defects!

### MedAid

A health management application used to help remind people to take their medication, identify conflicts, refill medications, and share a centralized source of medical history to a doctor over bluetooth.