

# Vidhyasagar Harihara

<https://vidxyz.github.io> | Versatile engineer with a knack for learning and delivery | [vdhysgr@gmail.com](mailto:vdhysgr@gmail.com)

## SKILLS

### PROGRAMMING LANGUAGES

- Scala • Elixir • Kotlin • Dart • Java
- Python • C++ • JavaScript • NodeJS
- HTML • CSS • jQuery • Swift • Bash

### FRAMEWORKS

- Kubernetes • Play • Phoenix • Ktor • Spring
- Django • Akka • Express • Android SDK
- Flutter SDK • Swift SDK • Kafka • Swing
- Guice • Flask • Keras • Tensorflow

### DATABASES

- PostgreSQL • MySQL • Athena • SQLite3
- Parse • Neo4J • MongoDB • Cassandra

### TOOLS

- Terraform • Docker • Kubectrl • Git
- KOPS • SOPS • CloudFormation • Elastic
- Grafana • Prometheus • Opensearch
- ArgoCD • Nginx • HAProxy • Sbt • Maven

### CLOUD TECHNOLOGIES

- AWS: S3, EC2, ECR, SQS, RDS, Athena, IAM, CloudWatch
- GCP: GCR, GCS, GKE, Pub/Sub, BigQuery, GCE
- Azure: AKS, AKV, VMSS, WAF, AAD

## PROJECTS

### FITCENTIVE

SCALA, ELIXIR, FLUTTER, TERRAFORM, KUBERNETES, GCP

Social fitness app aimed at helping you discover people with similar interests

### CLUEIN

FLUTTER

Companion app to help you play the game "Clue". Available on iOS, Android and Web

### SPACEJUNK

JAVA, XML, LIBGDX API

Platformer style Android game that allows you escape reality and shoot off into space. Available on both iOS and Android

## EDUCATION

### UNIVERSITY OF WATERLOO ONTARIO, CANADA

HONOURS COMPUTER SCIENCE

September 2013 - May 2018

Patent: Fraud Detection using Graph DBs

## EXPERIENCE

### IMPROVING, OTTAWA

SENIOR CONSULTANT, DEVOPS ENGINEER

May 2022 - Present | Toronto, ON

- Implemented **GitOps (CD)** with **ArgoCD** to configure **self-healing k8s manifests**
- Developed single sign-on **SSO** solutions for Prometheus, AlertManager, Opensearch, and Nexus using **OIDC, SAML and LDAP** with **Azure AD** integration
- Led the **migration** of distributed logging solution from Elasticsearch to **Opensearch** to handle **daily** ingestion of **50+ GBs** of logs using **Helm** charts and **Terraform**
- Established **CI/CD** pipelines with **semantic versioning** to deploy workloads on **AKS**
- Utilized **Terraform** extensively for **Azure** and **AKS cluster** resource management
- Introduced **kustomize** packages to streamline deployments to various environments
- Audited routes and designed rules to **secure** VPC networks using **Azure Firewall**
- Collaborated with various teams to perform frequent **production releases**

### BILLIE APP

SENIOR FULL STACK ENGINEER

May 2021 - May 2022 | Toronto, ON

- Designed **Scala** based APIs for key features, including auth workflows with multiple **SSO** providers, exporting **user login data**, & applying **booking constraints** to spaces
- Implemented end-end features in **react/react-native** to render **user avatars** on building **floor plans**, create modals for **data exports** as well as integrate schedules into a **calendar-like** view
- **Integrated** in-app calendar info with user's **email** calendar using Outlook/Google **Calendar APIs** to ensure bidirectional **synchronization** of changes
- Configured log based **alerts** and published them to **Slack** channels via web hooks for easy **visibility** into cluster services
- Managed **infrastructure** in **GCP**, including maintaining **kubernetes manifests**, rotation of **SSL Certificates**, configuring **artifact managers**, self-hosting **Kafka clusters** as well as creating **CI/CD pipelines** in **GitLab** as required

### ASKUITY INC, A DIVISION OF THE HOME DEPOT

SOFTWARE ENGINEER

July 2019 - May 2021 | Toronto, ON

- Designed and implemented a burstable **data-pipeline** on **EKS** with **Kotlin** and **Elixir** to operate on large POS datasets using **SQS** as the message broker
- Architected & implemented a database **schema** & **microservice** enabling users to create widgets displaying a variety of metrics
- Implemented an innovative solution using **Akka** streams to **precache** common user requests resulting in a **10x improvement** in response times
- Developed **REST/GraphQL** APIs for **data retrieval** & **authentication** in **Scala/Elixir**
- Established a staging environment on **AWS** for the development teams and configured **CI/CD pipelines** for automated **deployments** to **Kubernetes** clusters

### CAPITAL ONE BANK, CANADA BRANCH

SOFTWARE ENGINEER

May 2017 - Dec 2017, May 2018 - Oct 2018 | Toronto, ON

- Developed a **patented algorithm** for real-time **fraud detection** using graph databases, saving approximately **\$250,000** in potential fraud losses
- Released **version 1.3** of the Capital One **Android** Beta app loaded with new features built from the ground up on the **play store** to an audience of over a **1000** people
- Utilized various **AWS technologies** like **Redshift, S3, & EC2**, by deploying infrastructure with **Terraform**
- Implemented insolvency workflow solutions via **Kafka** based **Spring microservices**