

# Lee Harrold

## Software Engineer

Indianapolis, IN  
github.com/Harrolee

*Kind and curious engineer who inspires collaboration and builds community*

### Tools

---

**Generative AI:** PyTorch, Transformers, LangChain, Wandb, Axolotl

**DevOps:** Docker, Terraform, Nginx

**Languages:** Python, Cpp, C#, Typescript/Javascript

**AWS:** EC2, ECS, API Gateway, Lambda, S3, IAM, Dynamo

**Azure:** Service Bus, Logic Apps, Functions, Cosmos, VMs, Azure AD

**GCP:** Cloud Run, Firebase, CloudSQL, IAM

### Recent Engagements

**SEP | Westfield, IN**

**July 2021-Present**

---

#### Internal SEP Work

**~3 Years**

- **Enable SEP for AI** - Build LLM dev sandbox. Lead LLM app dev and ML workshops. Lead deep learning and LLM app dev study groups. Educate sales team. Advise hardware purchases
- **Build community** - Mentor new developers in *SEP Learns* book club. Lead technical study groups. Run monthly mini-hackathons. Plan and run semi-annual big hackathons
- **Support sales** - Collaborate in product design sessions with potential and existing clients. Support sales team on technical client calls. Attend meetups and conventions. Write blog posts

#### Brief Engagements

**3-6 Months**

- **ORV infotainment system** for vehicle manufacturer - Linux, Yocto Project, BitBake, Cpp
- **Timesheet ingestor** for professional services company. Rewrite and re-platform - QuickBooks SDK, C#, .Net 7
- **Inventory pipeline** for clothing distributor - C#, Terraform, Azure: Service Bus, Logic Apps, Functions, Cosmos
- **Greenfield mobile app** for Coke-Freestyle competitor - React Native, TS, Docker
- **Legacy app update** for accounting firm's flagship tax product: Implement OAuth with Okta, swap PDF library, simplify deployment strategy - Terraform, C#, .NET Framework, Angular, PowerShell, Azure Functions

#### Water Management

**~12 Months**

*Build and support the client's IoT ecosystem of consumer and commercial water products*

- **IoT dashboard** - re-platform and cloud-migrate - Nest.js, React, Postgres, AWS: Ec2, GCP: Cloud Run, Docker
- **Introduce IaC** to IoT dashboard app - reduce time-to-deploy, time-to-fix,
- **Level Up the Team** - Devise new deployment strategy with client IT team

### Previous Engagements

**Sept 2017-July 2021**

---

#### App Developer

**SPKaA | Scotts Valley, CA**

**March 2021-July 2021**

- Build web app features with Python, SQL, JS, and HTML. Configure AWS API Gateway and IAM. Write Lambdas
- Design build and release process with Git, BitBucket and Jira. Scan for security vulnerabilities with ZAP
- Service Windows servers with Powershell. Configure Puppet agents on internal and external servers

## **Systems Engineer**

**Epic Hosting | Verona, WI**

**Nov 2019-Dec 2020**

- Build and maintain Citrix XenApp sites on-prem and in Azure for three hospital systems, 8k+ workstations
- Deploy software with Puppet. Troubleshoot servers with PowerShell. Monitor infrastructure with Splunk
- Write PowerShell and Puppet modules. GitLab for CI and code reviews; write unit tests with Rspec and Pester

## **Cloud Architect** (Volunteer)

**Opal | Santa Clara, CA**

**March 2020-July 2020**

- Design and build mobile app backend on AWS with Lambda, DynamoDB, S3, API Gateway, and IAM
- Implement JWT authentication with S3 and AWS Lambda in Python.
- Collaborate with UX, Front-End, and Data Science leads to develop a student-mentor matching app

## **Unity Developer**

**Freelance | Santa Clara, CA**

**Aug 2018-Oct 2019**

- Complete nine total contracts for four private companies, two non-profits, and one private university
- Use C# and Unity3D to build interactive VR experiences for Oculus Rift and Go, HTC Vive
- Create 3D models and animations with Maya. Host and deliver content with AWS S3

## **VR Lab Technician**

**Santa Clara University | CA**

**Sept 2017-April 2019**

- Use C#, Unity 3D, Maya, Photoshop, and Marvelous Designer to develop promotional VR applications
- Train students and faculty to build projects with Unity3D, C#, Maya, Vive, Oculus Go, ARKit
- Maintain and manage lab equipment. Prepare presentations for Imaginarium fundraising activities

## **Certificates and Training**

---

**GCP Cert:** Professional Data Engineer '19

**BA Theater Arts:** Santa Clara University '15-'18

### **Data Engineer Boot Camp**

**WalkWater | San Jose, CA**

**April 2019-Aug 2019**

- Build case-study projects on GCP with Python, Shell, BigQuery, Pub/Sub, Tableau, DataFlow, SQL
- Learn to build stateless applications and to design columnar, SQL, document, and object databases
- Train and deploy ML and Deep Learning models. Architect data pipelines and dashboards. Build VMs.

### **VR Intern**

**Fair Worlds | Seattle, WA**

**July 2018-Aug 2018**

- Learn C# from Lead Developer. Create 3D models in Maya. QA new features. Build VR performance piece

## **Education**

---

**BA Theater Arts:** Santa Clara University '15-'18

**GCP Cert:** Professional Data Engineer '19

### **Data Engineer Boot Camp**

**WalkWater | San Jose, CA**

**April 2019-Aug 2019**

- Build case-study projects on GCP with Python, Shell, BigQuery, Pub/Sub, Tableau, DataFlow, SQL
  - Learn to build stateless applications with columnar, SQL, and document databases
  - Train and deploy ML and Deep Learning models. Architect data pipelines and dashboards
- 

Complete work history: [linkedin.com/in/lee-harrold/](https://www.linkedin.com/in/lee-harrold/)

Personal projects: [harrolee.github.io](https://harrolee.github.io)