

**Michel Rouly**  
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web [michel.rouly.net](http://michel.rouly.net) git [github.com/jrouly](https://github.com/jrouly) gpg [0x1DFE3B2C](https://keybase.io/jrouly)

## Skills

**languages** scala, python, typescript, javascript, java  
**libraries** pandas, sklearn, play, akka, cats  
**data** sql, dagster, postgres, elasticsearch, redis  
**devops** kubernetes, docker, terraform, helm, jenkins, drone, prometheus, datadog  
**aws** eks, rds, iam, s3, route53, cognito, ec2, vpc, sso, opensearch  
**etc** bash, git, sbt, npm, gpg, openapi, grpc

## Work

*Zephyr AI* {python, machine learning, infrastructure}  [\(zephyrai.bio\)](https://zephyrai.bio)  
**Principal Software Engineer** **04/2021 - present**

- Designed and implemented multiaccount AWS cloud architecture including networking (VPC), compute (EKS), data (RDS, S3), and identity (IAM, SSO) layers managed with Terraform.
- Introduced and implemented Python and Scala toolchains supporting a polyglot stack.
- Designed, built, and supported microservice architecture leveraging gRPC.
- Orchestrated complex data processing and model training graphs with Dagster and Python.
- Configured continuous integration and delivery pipelines using Drone on Kubernetes.

*Rally Health* {scala, microservices, infrastructure}  [\(rallyhealth.com\)](https://rallyhealth.com)  
**Principal Software Engineer** **11/2019 - 04/2021**  
**Senior Software Engineer** **09/2016 - 11/2019**  
**Software Engineer** **09/2015 - 09/2016**

- Architected and developed greenfield user facing microservice based applications in Scala using the Play framework.
- Managed production deploys, served on-call rotations, supported 24/7 live site.
- Designed and optimized ETL pipelines using Akka Streams, accelerating data ingestion velocity and increasing data quality standards.
- Built internal developer tooling including sbt plugins, focusing on automation.
- Instrumented performance and live site monitoring metrics with Datadog, increasing observability and reducing application downtime.
- Implemented security engineering goals with a focus on user privacy; hardened applications against known and anticipated abuse cases.
- Mentored and leveled up numerous junior developers.

*George Mason University* {python, django, open source}  [\(honorscollege.gmu.edu\)](https://honorscollege.gmu.edu)  
**Lead Project Developer** **08/2013 - 01/2015**

- Designed and built a collaborative research tool in Python with Django.
- Maintained multiple Linux servers hosting online content.

*Harmonia* {java, machine learning}  [\(harmonia.com\)](https://harmonia.com)  
**Programming Consultant** **06/2012 - 06/2013**

- Created components of a learning classifier engine.
- Designed and implemented complex graphical user interfaces.

## Education

**M.S. Computer Science**, Georgia Institute of Technology **01/2017 - 12/2018**  
**B.S. Computer Science**, George Mason University, *summa cum laude* **08/2011 - 06/2015**

## Publications

**2015** ACM [doi.org/10.1145/2787622.2787723](https://doi.org/10.1145/2787622.2787723)  
**2014** ACM [doi.org/10.1145/2688204.2688207](https://doi.org/10.1145/2688204.2688207)  
**2014** IEEE [doi.org/10.1109/IC2E.2014.42](https://doi.org/10.1109/IC2E.2014.42)