CIARAN MCKEY

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EXPERIENCE

Engineering Lead

Darktrace | Cyber Security | 3000 Employees | Global

📅 Jan 2024 - Present   📍 Cambridge, UK

Technologies

Python

Python | FastAPI | Uvicorn | SQLAlchemy | Alembic | Pydantic | Celery | PyTest | Concurrent Futures | Asyncio | NumPy | Pandas

Ops

PostgreSql | Bash | Redis | Docker | Kubernetes | Git | GitLab CI/CD | Terraform | FluxCD | ArgoCD | Helm

AWS

DynamoDb | RDS | EC2 | EKS | ECS | SQS | IAM | WAF | S3 | CloudTrail | Cloudformation | Lambda | API Gateway | Parameter Store | Secrets Manager | Route53

Other

Golang | Rust | ReactJS | Figma

Overview

I have been given a team to lead following the successful launch of the Cloud Security product. My team goals are to further Research and Development within the Cloud Security space outside of the core product offering. This means identifying capabilities the product is lacking, understanding the requirements, designing and building these features to improve the product offering. This includes working with stakeholders across departments. Product to identify missing features. UX to design workflows for these features. UI to integrate with the backend and DevOps to get required pipelines and infrastructure in place.

Responsibilities

- Working closely with UX to standardise workflows and improve useability in the existing product with an aim to bring more useful insights and finding to the user in a more digestable and consistent way.
- Working closely with UI to build data frameworks around UI components in order to standardise how data is served for quick iteration in the future.
- Working closely with engineering leads to standardise processes and functionality across the product suite to create a more seamless experience.
- Architect, build and deploy all facets of production applications on Kubernetes to serve new product services.
- Manage priorities, assign tasks and deadlines to team members and all other clerical work associated with management

EDUCATION

BScEng Hons Computer and Electrical Engineering

University of Cape Town
Grade: 2.1

📅 2016 – 2019   📍 Cape Town, South Africa

PROFICIENCIES

Development
Python ●●●●●
Docker ●●●●●
Application Architect ●●●●○
Linux ●●●○○
Golang ●●○○○
ReactJS ●●○○○
Rust ●●○○○

DevOps
AWS ●●●●●
Kubernetes ●●●●○
System Architect ●●●●○
Helm ●●●○○
FluxCD ●●●○○
ArgoCD ●●●○○
Terraform ●●●○○

Soft Skills
Communication
Management
Collaboration

HOBBY PROJECTS

Stock Trading Bot.
I have built out a stock trading bot using Alpaca Trading Webhooks and API's, Python, Postgres and Redis. This bot is deployed on Kubernetes through my homelab internal developer platform. The application is made up of 3 components.
- The API which serves the data.
- The tradestream is a websocket listener that listens for order events such as fills, cancellations and creations. This is used to improve trade quality with near realtime updates on trading behaviour for a stock.
- the datastream is a websocket listener that listens for trade bars, quotes and trades. These are used with strategies to buy and sell stocks based on market movements.

EXPERIENCE CONTINUED

Software Engineer

Darktrace | Cyber Security | 3000 Employees | Global

📅 Apr 2021 - Jan 2024   📍 Cambridge, UK

Technologies

❗ **Same technologies used as in current role.**

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Overview

Started on existing offerings within the SaaS space. Wrote the first line and much of the application code on the core Cloud Security product offering for AWS. Took it to market with a team that grew to 11 engineers while managing the production cycles, production debugging, client calls and supporting teams across DevOps, Support, Product Development and Internal Development to ensure smooth operation during release.

Moved from working on a monolithic based architecture to a containerised microservice architecture. In doing so we built standards within Darktrace for further microservice development. Ranging from fault tolerance, scaling, resilience, security, development CI/CD and customer provisioning and deployment pipelines.

Responsibilities

- Architect, build and deploy microservices on Kubernetes to serve the backend of the product offering.
- Build authentication mechanisms to ensure customer data separation in production environments.
- Build customer provisioning pipelines.
- Help solidify company microservice development best practices within Darktrace.
- Manage production release cycles.
- Talk with customers to help deploy the product and debug issues.

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System and Backend Developer

Play Well for Life | EduTech | 10 Employees | Regional

📅 Jan 2020 - Apr 2021   📍 Surrey, UK

Technologies

AWS ECS   AWS EC2   Java   Python   SQL   Bubble.io

GitLab   Linux

Overview

Quick iteration development building MVP's for product ideas to take to investors and test on potential customers. Individual responsibilities included designing system architecture, building CI/CD pipelines, building provisioning pipelines, writing application code, deploying infrastructure and ensuring uptime.

Responsibilities

- Developed and deployed containerised microservices on AWS ECS
- Developed Java based microservice with an SQL datastore
- Worked with microcontrollers to develop hyrid system
- Built CI/CD pipelines
- Built Customer Portal with Bubble.io

HOBBY PROJECTS

Homelab Internal Developer Platform.
I have been building an Internal Developer Platform on bare metal Kubernetes at home. Functionality includes:

- Backups with Velero
- Access to internal (to the cluster) private services with Wireguard
- Secret management with External Secrets and Sealed Secrets
- Application provisioning with ArgoCD and FluxCD
- Persistent storage management with Ceph Rook
- Documentation management with Docusaurus
- AWS infrastructure management with Terragrunt
- Domain name and certificate management with Route53, MetalLB, External DNS and Cert Manager
- Monitoring with Grafana, Loki and Prometheus
- Service Mesh with Istio
- Authentication with a custom built Identity Provider. Including OIDC authentication with JWT's and session management
- OAuth2-Proxy integration with the IDP for plug and play service authentication
- An Admin console built in ReactJS to dynamically create secrets, subdomains and manage users, clients, roles and scopes

HOBBIES

📍 **Rock Climbing**

✈ **Traveling**

</> **Coding**