

EXPERIENCE

Capgemini Engineering, Software Engineer

2021 – Now

ASML, Virtual Fab Infrastructure, Software Developer through Capgemini Engineering

09.2022 – Now

- Maintained legacy and wrote software written in **Python** that virtualizes the client's chip manufacturing processes to cost and time-efficiently test and ensure software and hardware cross interoperability before physical deployment in customer fab
- Migrated the test execution platform from bare metal VMs orchestrated by **Jenkins** to **Jenkins** for **Kubernetes**
 - Reduces test failure occurrences due to infra-related issues, enables more parallel test executions by a factor of 10, and reduce infra downtime from once every 2 to 3 days to once every approximately 2 months
 - Leads the maintenance of this Jenkins platform after migration. Implemented further improvements that allowed users to execute more complex test scenarios.
- Led the team in migrating the test execution interface from a **Django** monolith to **Django Rest Framework** backend – **Angular** frontend microservice deployed in **Kubernetes** managed using **Helm**, with Asynchronous communication using **RabbitMQ**
 - Migration resulted in more concurrent users without sacrificing response time, more responsive and user friendly UI, and a more secure web environment through implementation of **OAuth2** and **RBAC** across the microservices
 - Achieved zero-downtime during new version releases, reduced maintenance related downtime, and allows thorough automated testing and higher codebase quality
- Observability stack used include **Kibana**, **FluentD**, and **Elasticsearch**, along with **OpenTelemetry**, to help inform resource availability of the infrastructure to all users and to guide stakeholders in making decisions on needed improvements or new features to be built, as well as auto-scaling resources on-demand
- Became one of the main contact persons in handling ad-hoc issues such as unexpected production outage, recovering lost data due to user error and high-prio requests
 - Handled these effectively by replying ASAP, giving honest time estimates to resolve the issue, and implemented solutions to prevent issue reoccurrence

Philips Innovation Services, Software Developer through Capgemini Engineering

07.2021 – 08.2022

- Responsible for maintenance and extending the existing test automation framework written using **C# (.NET Core and Framework)** and **Specflow** used by testers to automate testing of patient monitoring systems
- New features delivered include a patient simulator written in **C#** to simulate non-standard numerical vital values in the bedside monitors, and a new user interface to test nurse-side patient information center systems
- Built internal tools to support testers in automating non-directly test related tasks, such as a **Python** package to identify and visualize differences in different versions of the monitoring system use case scenario

Bravilor Bonamat, Software Developer through Capgemini Engineering

04.2021 – 07.2021

- Wrote customized test automation framework to automate manual testing of the GUI (graphical user interface) of the company's upcoming new coffee machine
- Test automation framework was built using **Python** and **Lua**, with **Robot Framework** integrated to support BDD testing
- Wrote Dockerfiles and used **Docker** to deploy BDD scenarios to various microcontrollers where the GUI is deployed to automate testing of the GUI under different deployment environments
- Set up a **CI/CD** pipeline using **Atlassian Bamboo** to automate testing and remote deployment of GUI software to the coffee machines at every software update

EDUCATION

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| Technische Universiteit Delft | MSc. Mechanical Engineering, High Tech Engineering Major | 08.2018 – 08.2020 |
| University of Melbourne | BSc. Mechanical Systems | 07.2014 – 06.2017 |

SKILLS

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| Programming Language | C#, Python, TypeScript, SQL, Bash, Powershell, Lua |
| Frameworks | .NET Core & Framework, Angular, Entity Framework, Django, Flask, SQLAlchemy, Moq, XUnit, Groovy, Pytest, Specflow, Jasmine, Cypress |
| Messaging | RabbitMQ (AMQP), MQTT, WebSockets, HTTP/HTTPS |
| Databases | MySQL, SQLite, InfluxDB, MongoDB, Redis |
| DevOps | Docker, Kubernetes, Jenkins, Atlassian Bamboo, GitHub Actions |
| Tools | Git, Grafana, Loki, k9s, Rancher, Splunk, Helm, Swagger, Jira |
| Concepts | OpenAPI, JWT, OAuth2, SOLID, Test Driven Development, Behavior Driven Development |
| Certifications | TMAP, Kubernetes Cloud Native Associate, Certified Kubernetes Application Developer |