

# Niels Uitterdijk

Entrepreneurial cloud architect driving innovation through smart and connected solutions.



## Profile

Certified architect with a five years of experience in cloud infrastructure design, security and migration across industry, FSI, and telecom. I'm a driven engineer, entrepreneur and deeply committed to innovation and delivering tangible value. My expertise extends to cloud engineering, with a comprehensive project portfolio in IIoT, Machine Learning, Generative AI. I excel in designing scalable, secure, and efficient cloud solutions to meet business needs and enhance operational efficiency.

## Most Proud Of

- 🏆 Founding a Startup
- 🏆 Building an Electric Racecar
- 🏆 Zurich Marathon Finisher

## Strengths

Strategic Thinking

Problem-Solving Analytical

Security Project Mgtm.

Systems Design Leadership

Customer Focus Resilience

DevOps


## Languages


Dutch	Native
English	Fluent
German	B1


## Certifications


AZ-104 Azure Administrator  
AZ-305 Solutions Architect Expert


## Contact

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## Professional Experience

### IoT & Expert Cloud Engineer

#### Jun 2023 – ongoing | Zühlke Engineering AG | Zurich

- Architected a medical IIoT solution, connecting 15,000 medical devices into an remote monitoring & data access platform, overseeing team formation, and managing cost estimations.
- Addressed 1,600 Azure vulnerabilities within four weeks for a health insurer, boosting the Defender Security Score by 12%. Crafted and executed a Cloud Governance Strategy, facilitating their Azure environment migration.
- Created a GPT-4 based underwriter assistant for a global insurer, streamlining access to over 500 documents for global use.
- Developed a high-accuracy (95%) ChatGPT-powered chatbot for a Swiss telecom provider, leveraging Azure and the Power Platform, outperforming BingSearch by 30%.
- Amplified Zühlke's IIoT sector presence by leading monthly consultant talks, attracting 40 attendees on average, and establishing a vital internal IIoT knowledge base.
- Contributed to the successful (up)selling of multiple projects.

### Founder & CTO

#### Mar 2020 – Mar 2023 | Amplo AG | Zurich

- Founded a tech startup from ideation to launch, securing 1.6M CHF in funding, and growing the team to eight.
- Developed an event-driven predictive maintenance platform, enhancing client productivity by 80%.
- Established a strong culture of collaboration, innovation, and customer-focus, achieving 100% employee retention.
- Automated ML pipelines with Databricks, Kubernetes, RabbitMQ, and ClearML, enabled deploying over 1,000 predictive models for seven clients.
- Launched several ML-based products, improving user engagement by 15% and reducing downtime by 10%.

### Cloud & ML Freelancer

#### Oct 2019 – Aug 2020 | Upwork | Remote

- Acquired 'Rising Talent' status, with a rating of 4.92 / 5.0

### Machine Learning Intern

#### Feb 2019 – Aug 2019 | Tritium Ltd. Pty. | Brisbane, Australia

- Analysed failure data and deployed predictive models in AWS lambda, connected with telemetry in S3 to improve successful charger rate by ±5%.

### Teaching Assistant Advanced Dynamics

#### Aug 2015 – Feb 2016 | Technical University of Delft | Delft, Netherlands

## Skills

### Programming

Python, SQL, .NET, Typescript

### IaC

Terraform, Bicep, ARM

### Vendors

Azure, GCP

### Notable Services

IoT Hub, AKS, Databricks, Synapse, Stream Analytics, Policy, Sentinel.

### Architectures

Lambda, Kappa, Event-driven, microservices, multi-tier, cloud-native, hybrid cloud, HA/DR.

### Performance Optimization

Load balancing, autoscaling, caching, CDN

### Frameworks

Arc42, Cloud Governance Strategy, Cost Management Framework, Well-Architected Framework, Cloud Adoption Framework.

## Education

### MSc Systems & Control

Sep 2017 – Feb 2020 | Technical University of Delft

- MSc thesis for Tritium (DC Fast Charger OEM, 5.000 globally). (Grade 8.5 / 10.0)

### BSc Mechanical Engineering

Sep 2013 – Jul 2016 | Technical University of Delft

## Extra-curricular

### Powertrain Dep. Manager

Jul 2016 – Aug 2017 | Formula Student Team Delft

- Competed in FS Hungary (2nd), FS Spain (4th) and FS Germany (12th).

### Board - Secretary

Sep 2016 – Aug 2017 | SRC Thor | Delft

### Exchange Minor

Aug 2015 – Feb 2016 | Lund University | Lund, Sweden

### BSc Honours Programme

Sep 2014 - Aug 2015 | Technical University of Delft

- Elected from the top 5% students.

## Notable Projects

### IIoT Cloud Architecture for Medical Machines

Nov '23 - Jan '24 | 3 months | Cloud Architect

- Azure B2C
- HA/DR
- Front Door
- AKS
- IoT Hub
- Stream Analytics

To boost revenue and outpace competitors, a Swiss medical manufacturer aimed to collect machine data. We architected their Landing Zone, IIoT infrastructure, and Azure B2C identity management, addressing regulatory compliance, secure networking, and scalable architecture. This preparation enabled a smooth implementation start.

### Azure Cloud Security Concept

Oct '23 - Mar '24 | 6 months | Cloud Lead

- Azure
- Sentinel
- Terraform
- Policy
- Governance
- Security
- Azure DevOps

Facing a FINMA audit with 1,600 vulnerabilities, we prioritized and fixed them for a major Swiss health insurer, established a Cloud Governance Strategy, and helped form their cloud Security, Governance, and Operations teams. We initiated Sentinel and Policy setups, boosting their Secure Score by 12% and enhancing centralized monitoring for steady security.

### GPT-4 Powered Underwriter Assistant

Oct '23 - Mar '24 | 6 months | Cloud Lead

- OpenAI
- Azure Kubernetes Service
- Azure Functions
- SQL Database
- Azure DevOps
- .NET

For a global insurance firm, we streamlined underwriting by categorizing 500+ guidelines and extracting key risk factors. Implemented on AKS, our web-scraper and API integration made crucial data accessible to underwriters, enhancing their process with key policy insights.

### IoT Platform for EV Chargers

Jun '22 - Apr '23 | 10 months | Tech Lead

- AKS
- IoT Hub
- Data Lake
- Functions
- SQL Database
- Service Bus
- Python, TS
- Azure DevOps

We developed an charger management platform to tackle EV charger reliability. It centralizes documentation, configurations, live telemetry, and uses machine learning for failure detection, accelerating root cause analysis by up to 80%.

### Smart Maintenance Platform for Industrial Machinery Manufacturers

Jan '21 - Jun '22 | 1.5 years | Tech Lead

- GKE
- GCP Dataflow
- GCP IoT Core
- Azure
- Python, JS
- Github Actions

Designed and implemented a machine learning platform for predictive maintenance, integrating IoT data sources. Enabled service engineers to efficiently manage data and develop over 1,000 machine learning models for on-premises and cloud deployment, successfully predicting dozens of daily failures.

### Solar Manager AG Underperformance Detection

2020 | 6 months | Machine Learning Engineer

- AWS EC2
- AWS S3
- Python
- Github Actions

Solar panel degradation often happens unnoticed, causing energy losses. We developed a model to check whether the daily energy production was as expected, given the weather conditions. We detected underperformance in 2% of users and increased user engagement by 15%.

### Saudi Aramco Processhub

2019 | 9 months | Machine Learning Engineer

LNG transportation requires a large industrial compressor for liquification which is hard-to-control and a single point of failure. We build a recommendation engine using a predictive model to support the control engineers, reducing flaring by 9%.