

Mikkel Hansen

Backend / Cloud Developer · Computer Scientist

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[LinkedIn](#) · [GitHub](#) · doktorhansen.dev · [Google Scholar](#)

PROFILE

Backend and cloud developer with an MSc in Computer Science and a research background in **formal methods**. Several years building and operating production software at scale — national mobile platforms and healthcare systems at Netcompany, and now backend microservices for a connected consumer-hardware product at Saphe. Comfortable across the stack and into DevOps: **C#/I.NET microservices, Docker, Kubernetes (GKE), gRPC, and CI/CD**.

EXPERIENCE

Software Developer — Backend / Cloud | Saphe A/S

Sep 2024 – Present

Aalborg

- Build and maintain features across a **C#/I.NET microservice** backend for Saphe's subscription traffic-alarm service — **500,000+ paying subscribers and 1M+ users** — in a small (4–7-person) backend/cloud team.
- Services are containerized with **Docker** and run on **Google Kubernetes Engine (GKE)**, communicating over **gRPC**.
- Cover DevOps tasks alongside feature work: deployments, monitoring, **CI/CD pipelines (Azure DevOps)**, and cluster configuration.

IT Consultant → Senior Architect → Senior Specialist | Netcompany

Sep 2020 – Aug 2024

Aalborg

- Delivered software for the Danish public and healthcare sector in an agile, client-facing environment; progressed from consultant to Senior Architect and Senior Specialist over four years.
- Contributed to national **pandemic-response mobile apps** — the Danish **Coronapas (3M+ downloads)** and the Danish and Norwegian contact-tracing apps **Smittestop / Smittestopp (2.5M+ users; 500,000+ infection registrations)** — in large, distributed teams across Aalborg and Netcompany's Ho Chi Minh City offices.
- For the **Danish Medicines Agency** (4–7-person team): maintained and developed their Microsoft Dynamics CRM platform, and led the build of an integration to the **EU medicines database** operated by the European Medicines Agency.

Researcher / Research Assistant | Aalborg University, Dept. of Computer Science

2015 – 2020

Aalborg

- Research in **formal verification** — weighted transition systems and model checking under uncertainty — resulting in peer-reviewed publications (below).
- Taught and supervised on the Computer Science and Software Engineering programmes (incl. object-oriented programming and syntax & semantics); presented at international conferences.

EDUCATION

MSc in Computer Science — Aalborg University · 2013–2015

Thesis: A Complete Approximation Theory for Weighted Transition Systems

BSc in Computer Science — Aalborg University · 2010–2013

Project: On Error Propagation and Power Consumption Using Trilateration in WSNs

TECHNICAL SKILLS

Languages	C# / .NET, Python, Java, C/C++, SQL, Bash
Cloud & DevOps	Docker, Kubernetes (GKE), Azure DevOps (CI/CD), Git, Linux
Data	MSSQL, PostgreSQL, MongoDB
Other	gRPC, microservice architecture, formal methods

SELECTED PUBLICATIONS

Google Scholar: 48 citations · h-index 4

- Bacci, G., **Hansen, M.**, Larsen, K.G. *Model Checking Constrained Markov Reward Models with Uncertainties*. QEST 2019.
- **Hansen, M.**, Larsen, K.G., Mardare, R., Pedersen, M.R. *Reasoning about Bounds in Weighted Transition Systems*. Logical Methods in Computer Science, 2018.
- Bacci, G., **Hansen, M.**, Larsen, K.G. *On the Verification of Weighted Kripke Structures under Uncertainty*. QEST 2018.
- **Hansen, M.**, Larsen, K.G., Mardare, R., Pedersen, M.R., Xue, B. *A Complete Approximation Theory for Weighted Transition Systems*. SETTA 2016.
- Christoffersen, P., **Hansen, M.**, Mariegaard, A., Ringsmose, J.T., Larsen, K.G. *Parametric Verification of Weighted Systems*. SynCoP 2015.

LANGUAGES

Danish (native) · English (fluent)