Casper Kristiansson

Studying MSc Computer Science at KTH
Royal Institute of Technology

CONTACT

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PROFILE

MSc Computer Science candidate at KTH Royal Institute of Technology, with expertise in cloud computing, full-stack development, and managing complete software pipelines. As a co-founder of Klimra and PKTraffic, I have successfully led the development of scalable, cloud-based solutions for real-world applications. Additionally, as a consultant at Scatterin, I built a platform for real-time data analysis of neutron and synchrotron experiments, ensuring efficient handling of large-scale datasets throughout the entire pipeline.

EDUCATION

KTH Royal Institute of Technology

Master of Science in Computer Science

2023 - 2025

- Exchange Semester: Kyushu University, Japan (2024)

KTH Royal Institute of Technology

Bachelor of Engineering in Computer Engineering

2020 - 2023

- Exchange Semester: The Hong Kong University of Science and Technology, HK (2022)

WORK EXPERIENCE

Scatterin

Full Stack Developer

Feb 2023 - Present

- Built cloud-based platform for real-time data analysis of neutron and synchrotron experiments
- Developed **100+ AWS Lambda endpoints**, managing large datasets on AWS infrastructure
- Built and maintained a **10+ service** AWS infrastructure using IaC across multiple stages
- Designed a custom frontend for managing large datasets, enabling users to interact with **100s gigabytes** of data.

Klimra

Co-Founder & CTO

Aug 2024 - Present

- Developed automated compensation system for train delays
- Built a solution that meets Google's strict security policies with integrating with there services

PKTraffic

Co-Founder & CTO

Dec 2020 - Sep 2024

- Created a hybrid system for processing traffic data from **3,000 highway cameras** using AWS and on-premise servers
- Designed a scalable video storage solution for **10s terabytes**, leveraging AWS S3 Glacier to cut long-term storage costs
- Successfully recorded video data from approximately **45,000 traffic incidents**, contributing to robust analytics

Northvolt

Backend Software Engineer Intern

Jun 2022 - Aug 2022

- Developed GraphQL endpoints in Go integrated with serverless computing
- Modeled data in DynamoDB and used Terraform to automate AWS infrastructure

PostNord

Full Stack Developer

Jul 2021 - Aug 2021

- Developed Python-based image editor and mass email sender, reducing task completion **time by 75%**
- Used PyQt and QT Designer for application development

CERTIFICATION

Elements of AI – Introduction to AI
University of Helsinki

Elements of AI – Building AI
University of Helsinki

CCNA: Enterprise Networking, Security
Cisco

CCNA: Switching, Routing, Wireless Ess.
Cisco

AWARDS

- **Sten Vigrens Stipendiefond**
- **Scandinavia-Japan Sasakawa Foundation**
- **Anna Whitlocks Minnesfond**

PUBLICATIONS

Cloud Computing Pricing & Deployment Efforts
KTH Royal Institute of Technology, June 2023
Explored the cost and implementation challenges of cloud services with a focus on public and private providers.

PROGRAMMING LANGUAGES

- **Python**
- **Java**
- **C**
- **C++**
- **Rust**
- **Javascript**
- **Typescript**
- **Golang**
- **Elexir**
- **SQL**

LANGUAGES

- **Swedish:** Native or bilingual proficiency
- **English:** Full professional proficiency
- **French:** Elementary proficiency

TECHNICAL SKILLS

- **Databases:** MySQL, PostgreSQL, DynamoDB, MongoDB, Firebase
- **Frameworks & Libraries:** React, Redux, Flask, GraphQL, PyTest, JUnit
- **DevOps:** Terraform, Serverless, Docker, Github Actions
- **General:** API Development, Full-Stack Development, Microservices, Solution Architecture, ETL (Extract, Transform, Load), Version Control (Git)
- **AWS Services:** Lambda, S3, RDS, DynamoDB, ECR, ECS, EC2, IAM, CloudFormation, Route53, SES, Cognito federation, Cloudfront

PROJECTS

WeatherBrain: Developed a machine learning-based weather prediction system using IoT devices and real-time data. The project involved building a time-series prediction model in TensorFlow, utilizing data from a Raspberry Pi-connected IoT sensor to forecast weather conditions. I sourced historical weather data from a website in Sweden and integrated Azure services to automate daily predictions.

For more projects, visit: casperkristiansson.github.io/Personal-Portfolio