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## Sindre Knudsen Smistad

## Education

2015 MSc Information Security (Not Completed), NTNU Gjøvik, Norway

2014 **BSc Artificial Intelligence & Robotics**, *University of Aberystwyth*, UK, *2:1* Dissertation: *Spiking Neural Networks* 

### Work

2025-date Tech Lead, Bouvet - Origo, Norway

Origo is the name of both a data platform and the team working on developing and implementing products for Equinor. The project develops user-friendly solutions that help digitalize Equinor's portfolio management processes. The solutions guide users through steps that help standardize processes, increase transparency, save time, and ensure necessary approvals throughout the process. The Origo team consists of software developers, QA engineers, data analysts, UX and service designers, as well as experts in change management, training, and communication. The team contributes throughout the entire product development cycle, from insight work and prototyping, through technical development, testing and approval, to training, implementation, and rollout in the organization. For user insights, the team works in accordance with Design Thinking methodology, while change management is carried out in line with PROSCI's framework. The team is cross-functional and works in an agile manner, where solutions are developed iteratively. Origo includes products developed with Power App technology with "Custom Code elements" and Power BI data analytics. The front-end solution is developed on the PowerApp platform, with Azure backend and data engineering in Databricks. Background processing is implemented via Platform-as-a-service in Azure. We carry out integration with various software in Equinor.

- Technical leadership and guidance for development teams focusing on React frontend and Azure backend development
- Conducted comprehensive refactoring of an existing application with low code quality, which improved maintainability and stability
- Close collaboration with the architect to support and assist in technical decisions and implementations
- Established regular synchronization meetings with architect and other tech leads to ensure consistent technical direction
- Led an innovative experiment to develop an API layer between Dataverse and React frontend, where I contributed with specialized expertise in API design and the Azure platform
- Quality assured technical solutions across PowerApp platform, Azure backend, and data engineering in Databricks

## 2024-2025 **Tech Lead**, *Bouvet - ProCoSys*, Norway

Project Completion System (ProCoSys) is a comprehensive technical system for completion and system testing used in the construction and modification of platforms, gas facilities, and wind farms. The system manages technical information, documentation, checklists, deviation reports, and signing for handovers. With over 10,000 users, the system is business-critical for Equinor and includes several integrated solutions, including web applications for end users and administrators, mobile applications, external APIs, and integration services for data exchange with external suppliers and internal systems.

- Established and drove architecture for modernizing a business-critical completion system (10,000+ users) based on .NET Aspire
- Designed initial code structure and GitHub configuration for a distributed multi-API system
- Led technical discussions and cross-team collaboration to solve complex access management challenges in distributed applications
- Designed and implemented integration solutions with the data platform and external systems
- Ensured scalable and secure data exchange across platforms for technical documentation, checklists, and handover processes
- Coordinated with stakeholders to develop optimal solutions meeting business requirements for platform, gas facility, and wind farm projects

## 2024-2025 **Senior Backend Developer**, Bouvet - ProCoSys, Norway

- Led key aspects of modernization efforts for ProCoSys, a business-critical system used by 10,000+ users across platforms, gas facilities, and wind farms;
- Spearheaded integration of React components within existing .NET Framework MVC architecture, solving complex implementation and authentication challenges;
- Developed robust solutions for seamless authentication against external APIs while maintaining system security integrity;
- Established best practices for hybrid architecture combining modern frontend technology with legacy backend systems;
- Ensured high code quality and performance in system integrations, with particular focus on secure data handling and optimized inter-component communication;
- Actively contributed to team skill development through knowledge sharing of modern development methods and architectural principles;
- Leveraged dual expertise in backend and frontend technologies to build effective bridges between legacy and new system components while maintaining operational stability.

## 2022-2024 Backend Developer, Storm - Vortex, Norway

Vortex is an advanced planning tool designed for the offshore wind industry. This system is central to coordinating maintenance activities on wind turbines. It enables efficient planning and prioritization of maintenance work, providing a detailed overview of which turbines require maintenance and which work orders need to be executed. A key feature of Vortex is its ability to manage work permits for each work order. This ensures that all operations are conducted in accordance with relevant safety protocols and regulations. The system also monitors the qualifications of workers, guaranteeing that those performing the work have the necessary certifications and expertise. Through its intuitive interface and robust functionalities, Vortex enhances the safety and efficiency of maintenance operations on offshore wind turbines.

- Development of a scalable GraphQL API for maintenance planning of offshore wind turbines;
- Establishment and documentation of the system's access control architecture;
- Creation of Vizgql, a specialized tool for analyzing and visualizing access management in GraphQL schemas;
- Implementation of robust integrations with external systems using the Azure platform;
- Close collaboration with end users to ensure solutions effectively supported their work processes and security requirements.

## 2007-2009 Fullstack Developer, Proplan Utvikling - Proplan HRM, Norway

A cloud solution for registration and control of personnel, competence, documents, and hours. Cloud-based personnel register that stores all necessary information in one place, with GDPR compliance for employee information and documents. Rights-managed document archive that allows employees or managers to upload documents with version control. Competence overview for the company, registration of courses and certifications with accompanying documentation. Events and notifications that make it easy to get an overview of processes around employee status such as position changes and termination of employment. Vacation, absence and time registration and overview around this.

- Led design and development of the GraphQL schema architecture in a multi-tenant ASP.NET Core solution, implementing automatic type/query generation with robust access control;
- Developed a dynamic form builder component allowing users to create complex data collection forms that trigger automated processes;
- Created a system for automatic frontend type generation from the backend GraphQL schema, ensuring full type support for frontend developers;
- Established comprehensive DevOps infrastructure, including CI/CD pipelines, build processes, and Azure App Service deployment architecture;
- Implemented monitoring and quality assurance tools (Seq logging, SonarQube) to maintain code quality and system performance;
- Contributed to UX design and frontend development, focusing on intuitive interfaces for personnel, competence, and document management with GDPR compliance.

## 2020-2022 Fullstack Developer, Proplan Utvikling - Proplan Tlltak, Norway

Proplan Tiltak is a follow-up tool for companies that have individuals on work programs through NAV (Norwegian Labour and Welfare Administration) with them or others. Here, customers can maintain oversight of processes, courses and reporting, and communication.

- O Designed and developed a Flutter mobile application for NAV's Work Program platform, enabling users to register and view data on job seekers and companies;
- Created comprehensive forms for personal data registration and implemented integration with the Norwegian Business Registry (Brønnøysund Register);
- Developed an interactive graphical dashboard providing visualization of time tracking for various periods and tasks;
- Led the implementation of process management features ensuring timely follow-up of agreements and activities within deadline dates;
- Engineered a secure ASP.NET Core backend API using GraphQL, implementing comprehensive role-based access control and GDPR compliance measures;
- Developed ready-made reports for NAV and external recipients while ensuring compliance with data processing agreements;
- Implemented robust security features including automatic deletion of sensitive information and activity logging;
- Worked independently on backend development and led design decisions in a small team environment for frontend development.

## Courses & Training

# 2024 Alcor Academy - Flying, Alcor Academy, by Marco Consalaro & Alessandro Di Gioia, Norway

The course built further on TDD, Walking and Running. This module focused on Acceptance Test Driven Development (ATDD), Test Doubles, Rules of Simple Design, and more. During the course, several exercises (Katas) were solved using Mob Programming. On the last day, participants deliver a presentation to demonstrate that they have understood the content.

# 2024 Applying DDD & EventStorming in Modern Architecture, Marek Dominiak & Vadim Prudnikov, Norway

During the course, the participant acquired skills in:

- O Fundamental principles of Domain-Driven Design (DDD) and EventStorming.
- Identifying Bounded Contexts using EventStorming.
- Tactical DDD essentials, including design and application of Value Objects, Entities, and Aggregates.
- Applying Tactical DDD practices in real-world coding scenarios.

## 2024 **GraphQL workshop**, *ChilliCream Inc*, Norway

A comprehensive two-day course covering the complete GraphQL development lifecycle in the .NET ecosystem. Day one focuses on core concepts, including migration from REST, GraphQL fundamentals, and schema design. Day two covers production-ready implementation, including subscriptions, federation, security, and monitoring with Open Telemetry. Participants will gain hands-on experience with both server and client-side development, preparing them to build and deploy robust GraphQL services.

# 2023 **Alcor Academy - Running**, *Alcor Academy, by Marco Consalaro & Alessandro Di Gioia*, Norway

Building further on the TDD course, Walking. This module focused on Refactoring, Code Smells, SOLID, Coupling and Cohesion, and more. During the course, several tasks (Katas) were solved using Mob Programming. On the last day, participants deliver a presentation to demonstrate that they have understood the content.

# 2023-date Alcor Academy - Walking, Alcor Academy, by Marco Consalaro & Alessandro Di Gioia, Norway

Teams begin to apply basic technical communication and collaborative real-time coding, and learn the fundamentals of classic test-driven development (TDD). They will learn to use IDE automation effectively while improving their ability to identify test cases and scenarios, which significantly accelerates development cycles. This focused approach not only increases speed to market but also creates a solid regression test suite that directly impacts the bottom line. Practical training with experienced instructors ensures that these skills can be implemented immediately, improving both development speed and efficiency.

## Additional Roles

#### 2022-date Technical Ambassador

As a technical ambassador for the Ultra department in Bouvet since 2023, I have played a key role in promoting knowledge sharing and professional development. I have regularly organized and facilitated "Knowledge Coffee" sessions, short but effective knowledge-sharing meetings where team members share experiences and expertise with colleagues. In addition to arranging these sessions, I have given professional presentations myself, and actively contributed to disseminating information about competence-enhancing events within Bouvet. A highlight was my participation in organizing an AI hackathon in 2023, where participants explored practical applications of AI technologies and Azure services to solve real business challenges. This initiative demonstrated the value of combining new technology with existing products and solutions.