

Jacob Andersson

Senior Software Engineer

✉ jaconsult05@gmail.com ☎ +46739088652 📍 Stockholm County, Sweden

PROFESSIONAL SUMMARY

Experienced Senior Software Engineer with **9+ years** of expertise in designing, developing, and maintaining high-performance, scalable systems. Highly proficient in **full-stack development** and cloud technologies, with a deep focus on **Node.js, Python, React, AWS, and AI** technologies. Proven leadership in driving cross-functional teams and building **customer-facing applications** with measurable impact, ensuring the integration of cutting-edge tech stacks, including **AI/LLM solutions**. Strong contributor in **CI/CD pipelines, infrastructure as code**, and fostering engineering best practices.

PROFESSIONAL EXPERIENCE

Mobi Systems (Mobi.AI)

02/2023 – Present

Senior Software Engineer

- Led the development of a highly scalable, AI-powered business automation platform aimed at streamlining business processes such as appointment scheduling, CRM management, and data analytics.
- The platform integrated **Node.js, Python and React** to deliver a highly performant and user-centric experience.
- Spearheaded the design and implementation of **AWS-based cloud infrastructure**, leveraging **EC2, S3, and RDS** to ensure **optimal scalability**, handling over **500,000 user interactions per day**.
- Architected and developed robust **RESTful APIs** and **GraphQL** interfaces, ensuring seamless communication between the front-end and back-end systems.
- Enhanced the flexibility and performance of APIs, improving data retrieval times by **40%**.
- Integrated **Kafka** for **real-time data streaming**, enabling asynchronous data processing and reducing latency by **30%**.
- Implemented **Redis** for in-memory caching, resulting in a **50% reduction in response times**.
- Drove the integration of **Retrieval-Augmented Generation (RAG)** for AI-powered recommendations and enhanced decision-making features, contributing to a **25% increase in customer satisfaction** and engagement.
- **Mentored junior engineers**, leading code reviews and fostering a culture of engineering excellence by adhering to industry best practices and high code quality standards.
- Collaborated with cross-functional teams, including **product managers** and **designers**, to ensure that the product delivered aligns with customer needs and business goals, delivering on-time solutions in a fast-paced Agile environment.
- **Tech Stack:** React, Node.js, Express, Nest.js, FastAPI, Python, AWS, PostgreSQL, Kafka, Redis, RESTful APIs, GraphQL, Docker, Kubernetes

Altair

05/2021 – 02/2023 | Stockholm, Sweden

Senior Software Engineer

- Led the development of **enterprise-grade simulation platforms** focused on **engineering data analytics** and **modeling solutions** for industries such as automotive, aerospace, and manufacturing.
- The platform utilized **React, Node.js** and **Python** to deliver a seamless and high-performance experience for users analyzing complex datasets.
- Implemented scalable and fault-tolerant microservices using **Python** and **React** that allowed for the analysis of large datasets in real-time, improving processing speeds by **45%**.

- Designed and developed **containerized microservices** using **Docker** and **Kubernetes**, enabling **CI/CD pipelines** and automated testing for faster, more efficient deployments.
- Enhanced the backend system by integrating **AWS services** (EC2, S3, RDS) for cloud hosting and storage, enabling the platform to scale across multiple regions and support **high traffic** loads without compromising performance.
- Implemented an advanced **PostgreSQL** database system with optimized queries and enhanced data storage capabilities, resulting in a **40% improvement in data processing speed** and reducing system downtime by **20%**.
- Developed a set of **RESTful APIs** and **GraphQL** services for data retrieval, significantly improving performance and reducing the overhead of complex querying operations.
- Worked closely with the data science team to integrate **AI/ML models** into the platform, enabling predictive analytics and optimization features, which increased model accuracy by **15%**.
- Collaborated with cross-functional teams to develop features that directly contributed to customer satisfaction, and regularly conducted **code reviews** and **mentorship** for junior developers.
- **Tech Stack:** React, Node.js, Python, AWS, PostgreSQL, Docker, Kubernetes, RESTful APIs, GraphQL

Altair

08/2017 – 05/2021

Software Engineer

- **Designed and implemented** scalable applications that handled high-volume **data analytics** and **visualizations** for engineering simulations, using **React** and **Python** to build intuitive, high-performance interfaces.
- Developed backend services in **Java** (Spring Boot) to create efficient RESTful APIs, ensuring robust and scalable connections to the frontend.
- Integrated **AWS services** to support cloud-based storage and computation, facilitating better performance and cost-effective resource management, reducing cloud costs by **25%**.
- Contributed to developing several **customer-facing features** that allowed real-time data analysis and simulation results, directly impacting over **50,000 active users**.
- Optimized **PostgreSQL** queries to improve performance, achieving a **30% reduction in data retrieval times** for complex queries, ensuring smooth user experience during high-demand periods.
- Collaborated with **QA teams** to implement automated testing and continuous integration pipelines, enabling **faster release cycles** and improved software quality.
- Delivered detailed **documentation** for internal teams, ensuring smooth onboarding for new developers and reducing troubleshooting time.
- **Tech Stack:** React, Python, Java, PostgreSQL, AWS

Vinnova

01/2017 – 05/2017 | Stockholm, Sweden

Master Thesis & Internship (Data Science / Visualization)

- Investigated the use of a **bilingual topic model** to analyze and decompose Vinnova's project proposal portfolio, leveraging **Python** for data processing and **natural language processing (NLP)** techniques to identify trends and patterns in the data.
- Applied advanced **topic modeling** algorithms to automatically classify project proposals, significantly improving the decision-making process and supporting data-driven insights for funding allocation.
- **Tech Stack:** Python, Data Science, Topic Modeling

Vinnova

06/2016 – 12/2016

Internship

- Developed a custom **interactive visualization tool** for the **Horizon 2020 framework**, which displayed funding distribution and collaboration patterns using **React**, **TypeScript**, and **D3.js**.
- Built both the **backend** and **frontend** components of the visualization tool, focusing on dynamic **data-driven UI elements** that helped stakeholders make data-driven decisions.
- Optimized the **backend architecture** to support large datasets, ensuring the tool remained highly responsive and scalable, even with growing project data.

- **Tech Stack:** TypeScript, React, D3.js

LeQuest

03/2014 – 06/2014 | Delft, Netherlands

Front-End Developer

- Conducted **research** on **JavaScript animation technologies** and implemented **interactive animations** using **CreateJS** for **HTML5 canvas** elements, improving the visual experience and interactivity of the company's health training platform.
- Collaborated with the design team to create a dynamic user interface that engaged users and enhanced the overall user experience.
- Operated and maintained **high-tech** semiconductor manufacturing equipment to ensure smooth and **efficient production processes**, adhering to strict quality standards and contributing to the timely delivery of products.
- **Tech Stack:** JavaScript, CreateJS

SKILLS

programming language

JavaScript (TypeScript), Node.js, Python, Java, php, C#

Frameworks

React, Next.js, Express, Nest, FastAPI, Spring Boot, Angular.js, Vue.js

Database

MySQL, PostgreSQL, MongoDB, Redis, Supabase, Graph Databases (Neo4j), Vector Databases (Pinecone)

Cloud Services

AWS (EC2, ECS, RDS, S3, API Gateway), GCP, Azure

DevOps & CI/CD

Docker, Kubernetes, Terraform, Jenkins, GitHub Actions

Message Brokers

Kafka, RabbitMQ

APIs

RESTful, GraphQL

AI Technologies

LLM integration, Retrieval-Augmented Generation (RAG), AI-enhanced systems

EDUCATION

KTH Royal Institute of Technology

2010 – 2017 | Stockholm, Sweden

Master's Degree in Computer Science

Delft University of Technology

2013 – 2014 | Delft, Netherlands

Studied algorithms, artificial intelligence, and human-computer interaction with a focus on designing usable, user-centered software systems.