

Work experience

May 2024 - **PipeCloud**, *DevOps Consultant (Polar Squad client)*, pipecloud.fi

- now ○ Modernization of their AWS stack implemented in the browser, moving to AWS CDK
- Migration of a legacy AWS account containing multiple setups to AWS Organizations
- Implementation of new CI/CD processes via Bitbucket pipelines for the new CDK setup
- Technologies frequently used: AWS CDK, AWS ECS, AWS Lambda, Elastic Beanstalk, AWS Route 53, AWS IAM, Terraform, NodeJS, Vue, PHP.

June 2024 - **Túlka**, *Azure OpenAI Expert & Tech Lead (Polar Squad client)*, tulka.com

- August 2024
- Creation of a multilingual translator for conversations in text and audio via Azure OpenAI
 - Management of frontend, backend and infrastructure teams of consultants
 - Personally supporting all three teams with both hands-on and hands-off work
 - Continuous communication with the customer to align expectations, timeline and progress
 - Technologies frequently used: Azure, OpenAI, Machine Learning, NLP, Python, FastAPI, React, Vite.

May 2023 - **Smartly**, *Backend & ML Engineer (Polar Squad client)*, smartly.io

- November 2023
- Terraform code migration to AWS CDK and implementation of new process running on AWS ECS
 - Maintenance of existing server based on NestJS and Stan (statistical modelling software)
 - Migration of backend server from NestJS to FastAPI
 - Technologies frequently used: TypeScript, Python, NestJS, FastAPI, Machine Learning, AWS CDK, AWS ECS, Terraform.

May 2022 - **Polar Squad**, *DevOps Consultant*, polarsquad.com

- now
- Consultation on how to improve processes, automation, collaboration, monitoring and culture in tech companies
 - Technical implementations of processes with customers
 - Internal sales work and assessment work to build warm leads for colleagues
 - Online presence in LinkedIn to market our consulting work
 - Technologies frequently used: Kubernetes, Docker, Terraform, Linux, python, bash, TypeScript, Go, AWS, GCP.

March 2022 - **Techtile**, *Freelance Technical Consultant*, dubmesoft.com

- now
- Management, tutoring and mentoring of the technical talent at Techtile
 - Web development (JavaScript, ReactJS, NextJS, Jest & Enzyme, Babel, Webpack)
 - Code maintenance, code reviews, bug fixing
 - Backend development (NodeJS, TypeScript, NestJS, PostgreSQL)
 - Machine Learning for a client in the architecture space (Tensorflow, Keras, Autodesk)

July 2020 - **Staiy**, *Chief Technical Officer*, staiy.com

- February 2022 ○ Management of the technical talent at Staiy, remote-work only
- Web development (JavaScript, ReactJS, Jest & Enzyme, Babel, Webpack)
- Responsive design implementation (CSS, Figma, styled-components, Storybook)
- Backend development (nodeJS, TypeScript, NestJS, python, Django, django-rest-framework)
- Database maintenance (MongoDB)
- Machine Learning (Computer Vision with Keras)
- DevOps on AWS, Docker and Google Cloud Platform
- Google Analytics & Google Tag Manager

Before joining the company, Staiy had an outsourced tech department that was underperforming and a crumbling infrastructure. It took forever to fix a ton of issues, but armed with patience and endurance, the turn-around to moving the tech department in-house, fixing a myriad of bugs and having me manage the tech team on an air-tight budget enabled Staiy to secure a 500,000€ investment round at the end of 2021.

January 2020 - **Berylls Digital Ventures GmbH**, *Data Scientist*, www.berylls.digital

- June 2020 Tasks include:

- Software development in Python (numPy, pandas, multiprocessing, matplotlib, etc.)
- Data analytics
- AWS, Docker, Google Cloud Platform
- Machine Learning engineering
- Natural Language Processing (NLP)
- Image Processing & Computer vision

September 2019 - **Staiy**, *Machine Learning Engineer*, staiy.com

December 2019 - Developing a search engine from scratch using a labelled dataset of product images to recommend products to users. Technologies used include

- Python (TensorFlow, Keras, numPy, pandas, Pillow, etc.)
- Docker
- SQL (MySQL)
- AWS

June 2018 - **HellaFastForward**, *Intrapreneur & Data Scientist*, hellafastforward.com

August 2019 - Developing a chatbot company from scratch using Rasa, automating internal communications and HR processes in HR departments for companies using natural language processing.

September 2018 - **Québec Solidaire**, *Data Analyst*, quebecsolidaire.net

Distributing the relevant pieces of information to members of the political party so that they can reach out to the relevant crowds with the relevant message during the last election in Québec (October 2018). Internally discussing integration of AI solutions to improve the political impact of the party at scale using data-driven approaches.

April 2018 - **Entrepreneur First**, *Member of the first EF cohort*, joinef.com

June 2018 - Backed by the world's best entrepreneurs, Entrepreneur First is a start-up incubator which tries to bring together the most ambitious individuals and bring them together to create the world's biggest companies.

Diplomas

2016 - now **PhD**, *Freie Universität Berlin*, paused, to be completed

- Topic : Algebraic group actions on toric varieties
- Supervisor : Prof. Dr. Klaus Altmann

2013 - 2016 **Masters Degree**, *Humboldt-Universität zu Berlin*

- Thesis title : Geometric properties of degeneracy loci of morphisms of vector bundles
- Supervisor : Prof. Dr. Gavril Farkas (<https://www.mathematik.hu-berlin.de/~farkas/>)

2010 - 2013 **Bachelor Degree**, *Université de Montréal, Québec, Canada, GPA : 4.3/4.3*

- Graduate courses : Measure Theory, Functional Analysis, Probability Theory, Representation Theory, Elliptic Curves and Modular Forms.

2008 - 2010 **College Degree (CÉGEP)**, *Cégep de Saint-Laurent, Québec, Canada*

- Attended 2 undergraduate courses (Analysis 1 - MAT1000 with Dr. Michel Delfour, Analysis 3 - MAT2100 with Dr. Marlène Frigon) before registering at the university ; these are first and fourth semester courses, respectively. CÉGEP is a diploma between high school and university required in Québec to attend university.

Skillset

Web Development

- Front-end development with ReactJS and NextJS as a React framework
- Test-driven development with Jest & Enzyme
- Visual component design with Storybook
- Easy deployment and hosting by Vercel, natively built for NextJS projects
- Hosting on Firebase, experience with the Firebase CLI
- Firebase Cloud functions for cloud-hosted backends (for example database APIs with Express)
- Firebase Realtime Database
- Experience with most of the AWS development tools (EC2, S3, CloudFront, RDS, Amplify, Cognito, Elastic Beanstalk, etc.)

Python development

- Experience building highly specializing geomarketing tools in the automotive industry
- Experience building highly specialized AI-powered chatbots using RASA
- Keras for building machine-learning models
- TensorFlow for building specialized and custom machine learning models
- Django & django-rest-framework for backend API development

Deep Learning (using Keras & Tensorflow)

- Neural nets
- NLP (spaCy, Word2Vec, etc.)
- image processing for computer vision algorithms
- autoencoders

Data Science

- Scikit-learn & Matplotlib for analytics & visualization
- SQL database management
- search engine management (ElasticSearch)
- applications deployment with Docker

DevOps

- Docker
- Kubernetes
- Terraform (Infrastructure-as-Code)
- CI/CD pipelines (GitHub actions, GitLab CI, AWS CodePipeline)

Typesetting : LaTeX (10+ years of experience)

Mathematical tools :

- Mathematica
- MATLAB
- Sage
- SymPy

Languages

Languages mastered

- German, fluent
- English, fluent
- French, native language
- Danish, Level : B2
- Spanish, Level : B1
- Portuguese, Level : B1

Feel free to contact me via e-mail using the contact information at the beginning of the CV!