

# Johannes Innerbichler

Cloud Freelancer



“A man provided with paper, pencil, and rubber, and subject to strict discipline, is in effect an universal machine.”

- Alan Turing -

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## Personal Details

Name	Johannes Simon Innerbichler
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Birth	17.06.1987
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GitHub	<a href="https://github.com/jinnerbichler">https://github.com/jinnerbichler</a>

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## Studies

### 2013 to 2016 **Master Telematik**

Graz University of Technology, Rechbauerstraße 12, 8010 Graz  
Focus: Computer Vision und Computational Intelligence  
passed with distinction  
Master's thesis: Cloud Storage Performance

### 2009 to 2013 **Bachelor Telematik**

Graz University of Technology, Rechbauerstraße 12, 8010 Graz  
passed with distinction  
Bachelor's thesis: Safe Implementation of AES

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## Timeline

- 2016 till now **IT Freelancer**, Cloud Applications with Microservices and Data Analytics  
As a freelancer, I have developed several cloud applications based on the Microservice paradigm and a focus on data security. Additional projects dealt with data analytics using techniques from Machine Learning and Artificial Intelligence. An up-to-date list of reference projects and skills can be found on [www.johannesinnerbichler.com](http://www.johannesinnerbichler.com).
- 2016 till 2018 **Salzburg Research**, Cloud focused IoT Researcher  
During this time, I worked on a cloud platform called NIMBLE, which enabled small and medium-sized businesses to find new partners on the platform and augment advanced business processes.
- 2014 to 2016 **CrossCloud GmbH**, Co-Founder, CTO and Managing Director  
CrossCloud is a client application for cloud storage, e.g. Dropbox or Google Drive, which enables companies to use multiple cloud storage services in a very easy and secure way. As co-founder and CTO of a startup, I led a team of five developers and learned how to create a product from the ground up. During my role as scrum master, I learned how to use resources efficiently. The founders of CrossCloud received the award of being Grazer of the year 2015 in the field of economy. Two investment rounds were closed and a FFG Basisprogramm was approved successfully.  
[www.crosscloud.me](http://www.crosscloud.me)
- 2012 to 2014 **Freelancer**, App and Web Development  
As a freelancer I developed several Groovy on Rails and HTML 5 applications.

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## IT Projects

### **NIMBLE Cloud Platform** – Roles: Cloud Architecture Design and Lead Developer

Java NIMBLE is marketed as the novel, federated approach for industry B2B cloud platforms.  
Maven The platform was built according to the Microservice paradigm, which led to a very  
Spring Cloud modular and flexible architecture. Spring Cloud (based on Spring Boot) provided the  
Kubernetes underlying framework for building the necessary cloud infrastructure. Docker was used as  
Helm deployment target and Kubernetes utilised as the container-orchestration system in the  
Microservices cloud. I was mainly in charge of designing the Microservice architecture and guided the  
Docker development of the platform as the lead developer. Additionally, I was in charge of the  
Jenkins security components, which were realised using Keycloak and the OAuth2.0 / OpenID  
Camunda Connect standard. Angular was the applied front-end technology. The source code of the  
platform is available open source on GitHub.  
GitHub: <https://github.com/nimble-platform>

### **CrossCloud Client Application** – Roles: CTO, Lead Developer and Scrum Master

Java The first version of the client application was a desktop application written in Java and  
Maven Groovy. Connections to different cloud storage services and the synchronization engine  
Spring Boot were executed on the Java Virtual Machine. By the end of 2015 we rewrote and  
Groovy refactored the entire application in Python. Mobile applications were developed using the  
Python Xamarin platform in order to reuse the business logic on iOS and Android. Server-side  
Flask implementation was created using the Spring Framework.  
NodeJS

### Cloud Storage Performance Analysis – Role: Developer

Java Python Django TensorFlow My master thesis dealt with a global performance analysis of three of the most used cloud storage providers (i.e. Dropbox, Google Drive and OneDrive). Different regression models were used to find an optimal model of global bandwidths. A deep understanding of Multiple Linear Regression and Support Vector Machines has been developed within this project.

### Neuronal Politician – Roles: Developer, Data Scientist and DevOps

Python TensorFlow Keras Django Speeches in the National Council of Austria are stenographically recorded and made available on data.gv.at. Recorded texts were used to train an artificial recurrent neural network, which uses the last 15 words to predict each 16th word. The source code is available on GitHub.

GitHub: <https://github.com/jinnerbichler/neural-politician-ai>

Website: <http://neuronaler-politiker.com/>

### Deep Learning Trading Agent – Roles: Data Scientist and DevOps

Python TensorFlow Keras With the help of a Convolutional Neural Nets (CNNs), we tried to make price predictions of cryptocurrencies (e.g. Bitcoin or Ethereum). The neural network was implemented with Google's Tensorflow and the higher abstraction library Keras. Past trades of the different currencies since 2013 were used as the underlying dataset. Later, a sentiment analysis of articles on Twitter was applied to further improve the prediction capabilities of the model. Next steps in this project will be a semantic classification of texts using Word Embeddings and an evaluation of Recurrent Neural Networks (RNN) for time series modeling.

### Safe Implementation of the AES-algorithm – Role: Developer

C Assembler During my bachelor thesis I was securing an existing implementation of the Advanced Encryption Standard (AES) on an 8-bit microcontroller against side-channel attacks.

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## Additional Qualifications

### IT-Knowledge

#### Programming Languages

Java / Python / JavaScript / Typescript / JSX

#### Libraries

Spring Boot / Spring Cloud / Spring Security / Bouncy Castle / Apache Kafka / ELK Stack / Tensorflow / Keras / scikit-learn / Numpy / NLKT / Spacy / Flask / Django / React / Angular 2-6

#### Software

Docker / Docker-compose / Kubernetes / PyCharm / IntelliJ / Maven / Jenkins / Travis CI / Keycloak / Git / GitHub / Gitlab / iPython /

### Languages

#### German

mother tongue

#### English

fluent in spoken and written



The Cloud Native Computing Foundation hereby certifies that

**Johannes Innerbichler**  
has successfully completed the program  
requirements to be recognized as a

**Certified Kubernetes Application Developer**

A handwritten signature in black ink, appearing to read "Dan Kohn".

DAN KOHN, EXECUTIVE DIRECTOR  
CLOUD NATIVE COMPUTING FOUNDATION

September 29, 2018

DATE OF COMPLETION

CKAD-1800-0193-0100

CERTIFICATE ID NUMBER