# Lorenz Hofmann-Wellenhof

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## EDUCATION

**University of Passau**                                                                                          **Passau, Germany**
*B. Sc. Mobile and Embedded Systems, M. Sc. Computer Science*                               *October 2014 — Present*
- Grade: 1.8 ~ 3.2 (GPA)
- Top 20% of 2017 graduation class
- Relevant coursework: Machine Learning, Algorithms and Data Structures, Agile Software Development, Computer Networks, Enterprise Software Architecture, Computer Architecture, Programming in Java, Mathematics in Technical Systems I-III, Computer Engineering

**Stevens Institute of Technology**                                                                      **New York City, USA**
*Education abroad in M. Sc. Computer Science*                                                       *August — December 2018*
- 4.0 GPA; top 3 project in Machine Learning class

## EXPERIENCE

**University of Passau**                                                                                                     **Remote**
*Graduate Researcher at the Chair of Data Science*                                               *July — December 2019*
- Investigating the effects of variational autoencoders and adversarial examples with Professor Doctor Michael Granitzer; funded by the SCCH
- Making open-source contributions to the tensorflow (TF) library: Migrating adversarial attack methods (FGSM, PGM, SPSA) from TF 1 to TF 2
- Used technologies: Python, tensorflow, Keras

**Google Summer of Code**                                                                                              **Remote**
*Google Summer of Code participant with API Client Tools at Google*                         *May — August 2019*
- Implemented the open-source tool gnostic-grpc: A tool that converts OpenAPI descriptions into a description of a gRPC service that can be used to implement that API using gRPC-JSON Transcoding (mentored by Tim Burks and Noah Dietz, software engineers at Google)
- Improved feature completeness of gnostic by converting the compiled Protocol Buffer representation into equivalent types which are processable by plugins
- Wrote a medium blog post that explains how to set up a gRPC API with envoy given an OpenAPI description; accumulated over 200 monthly readers
- Representation of this work at the API specification conference in Vancouver by Tim Burks in his worksshop
- Used technologies: Golang, Protocol Buffers, gRPC, OpenAPI, envoy

**csneovias GmbH**                                                                                          **Passau, Germany**
*Software engineer (working student)*                                                                    *March 2016 — July 2018*
- Designed and implemented student lifecycle management software for the University of Münster, University of Zurich, and the Goethe Institute; created fronted applications (course registry, courses overview) with my team using agile methodologies; built back end interfaces to provide applications with data
- Used technologies: JavaScript, ABAP, SAPUI5, OData protocol

## PROJECTS

**My Telegrams**                                                                                               **Graz, Austria**
*Creator*                                                                                                          *October 2017 — January 2019*
- Created an Amazon Echo Skill that enables users to send and to listen to messages via the Telegram Messenger
- Built a web server to connect the Skill to the Telegram API: Set up a REST API with Django and MySQL database; added social authentication, progressive web app support, OAuth, implemented push notification via Firebase; used a Python wrapper to communicate with the Telegram API, and used AWS for deployment; accumulated over 1300 users; a video of the skill in action
- Used technologies: Python, TypeScript, HTML5, CSS, Sass, Django, MySQL, Angular, AWS

**lorenzhofmannw.com**                                                                                    **Graz, Austria**
*Creator*                                                                                                          *March 2018 — January 2019*
- Implemented a personal webpage with Angular to constitute my projects, thoughts, and world views

**Bing Bong**                                                                                                     **Graz, Austria**
*Creator*                                                                                                          *February 2018 — July 2018*
- Launched a mathematical brain game as Amazon Echo Skill where users play against Alexa; accumulated over 3300 users
- Used technologies: Python, DynamoDB, AWS

## SKILLS

- Languages & Technologies: Proficient in Python, Golang; familiar with TypeScript, JavaScript, NumPy, pandas, SQL, Protocol Buffers, worked with Git, AWS, Django, Angular, Keras, tensorflow, gRPC, Alexa Skills Kit SDK

## ACTIVITIES & REWARDS

- Google Hash Code 2018: Rank 1545 out of 3012; Google kick start round B: Rank 1449 out of 2250
- Active member of the student council at the University of Passau: Representing the interests of the students of the faculty
- Volunteer at the TCS New York City Marathon: Handing out drinks to the runners and motivating them
- Google Summer of Code stipend: Awarded $5400 stipend from Google
- AWS Promotional Credits for Alexa Skill developers: Monthly AWS costs of $100 are covered