# MAXIMILIAN HOPFER

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## EXPERIENCE:

AWS Infrastructure Engineering Intern at Qintel: May 2024 – Aug 2024

- Automated cloud infrastructure setup for new accounts using CloudFormation stacks (YAML), reducing setup time by 40% and diminishing human errors, leading to more efficient deployments.
- Developed Lambda functions using Python (boto3) and SNS to automate cross-account CI/CD infrastructure setup, enabling developers to self-manage infrastructure and freeing up the infrastructure team for higher-priority tasks, leading to a 30% reduction in manual workload.
- Created CloudFormation stacks to configure and deploy Virtual Private Clouds (VPCs), subnets, Internet Gateways (IGWs), and NAT Gateways, and Transit Gateways, optimizing network architecture for scalability and security, and cost savings by aligning with AWS best practices.

Software Engineering Intern at BeyondNow Jun 2023 – Jul 2023

- Fixed defects in Java and JavaScript AWS lambda functions and addressed UI-customization issues by correcting scope transition definitions. Improved performance and stability of UI-customization platform.
- Collaborated with product teams to verify and research Infonova functionality, assisting in drafting customer offers, improving accuracy and clarity, resulting in a 10% reduction in offer preparation time.
- Utilized Git for version control, efficiently committing code and managing branches directly from terminal

SoloPart GmbH Jan 2020 – Jul 2020

- Developed and manufactured automation machines used for part separation and counting.

AVL-List GmbH: DDF-Port Design & Flow Development Jul 2018 – Aug 2018

- Developed a Layout for a length-adjustable conrod for a combustion engine.

## EDUCATION: AT: DUQUESNE UNIVERSITY PITTSBURGH

Master of Science in Computer Science: expected graduation May 2025

Bachelor of Science in Computer Science: graduated **CUM LAUDE**

College of Applied Technology – Austria, Weiz

Diploma Certificate of the Higher Federal Technical College of Mechanical Engineering

## ACCOMPLISHMENTS AT DUQUESNE UNIVERSITY:

Award of Excellency in Computer Science Department. May 2024

Tutor in Computer Science and Math department: 2021 – 2024

Duquesne University Men's Soccer-Team: 2020 – present

- Team Captain, awarded "The Duke Award" for demonstrating leadership, communication skills, teamwork, adaptability and work ethic consistently as voted by fellow student-athletes and coaches. Also Recognized by the A-10 conference for the team's success as all region team, all conference team, receiving recognition as a top 5% performer in the A-10 conference.

## PROJECTS:

Robotics: Developing and optimizing Crazyflie2 drone simulations using ROS and Gazebo. Focusing on time constraints, inter-node communication, and performance improvements. Restructuring the PID controller and implementing custom frequencies for enhanced control. Currently working in Linux environments.

Fully Dockerized 3-Tier application for automated delivery of Motivational Quotes per Email:
Integrated ChatGPT API for dynamic custom quotes generation, enhancing user engagement. Utilized MongoDB database for user data storage, including preferences and scheduling information. Designed an intuitive GUI using Tkinter, enabling users to easily configure their quote preferences and scheduling.

LSB Steganography: Python based application for hiding messages within images using Least Significant Bit steganography. Leveraged image processing techniques including PIL library ensuring high efficiency.

## KEY SKILLS:

Bilingual, Back-end, C++; Java; JavaScript; Git, Html, Python, VS Code; MongodB, SQL, Databases, AWS, Amazon Cloud Service, CloudFormation, Infrastructure as code, Linux, ROS, yaml, cloud-computing