

# Joel Beck

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## EXPERIENCE

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### Undergraduate Research Assistant

June 2020 – Present

*Texas A&M University*

*College Station, TX*

- Developed a REST API using FastAPI and PostgreSQL to store data from learning management systems
- Developed a full-stack web application using Flask, React, PostgreSQL and Docker to analyze GitHub data
- Explored ways to visualize GitHub collaboration in a classroom setting

### Information Technology Support Specialist

Sep. 2018 – Present

*Southwestern University*

*Georgetown, TX*

- Communicate with managers to set up campus computers used on campus
- Assess and troubleshoot computer problems brought by students, faculty and staff
- Maintain upkeep of computers, classroom equipment, and 200 printers across campus

### Artificial Intelligence Research Assistant

May 2019 – July 2019

*Southwestern University*

*Georgetown, TX*

- Explored methods to generate video game dungeons based off of *The Legend of Zelda*
- Developed a game in Java to test the generated dungeons
- Contributed 50K+ lines of code to an established codebase via Git
- Conducted a human subject study to determine which video game dungeon generation technique is enjoyable
- Wrote an 8-page paper and gave multiple presentations on-campus
- Presented virtually to the World Conference on Computational Intelligence

## EDUCATION

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### Georg-August-University of Göttingen

Göttingen, Germany

*Master of Science: Applied Statistics*

*Sep. 2020 – Sep. 2023*

- Overall Grade: 1.0 (Top 1%)
- Focus: Machine Learning, Deep Learning (NLP)
- Thesis: *Bridging Citation Analysis and Language Models: A Hybrid Recommender System for Computer Science Papers*

### University of Oslo

Oslo, Norway

*ERASMUS Study Abroad*

*Aug. 2018 – Dec. 2018*

- Courses in Risk Analysis & Actuarial Science

### University of Mannheim

Mannheim, Germany

*Bachelor of Science: Mathematics in Business and Economics*

*Sep. 2016 – March 2020*

- Overall Grade: 1.2 (Top 5%)
- Focus: Statistics, Probability Theory, Econometrics

### Ludwigsgymnasium Saarbrücken

Saarbrücken, Germany

*Abitur*

*Sep. 2007 – July 2015*

- Overall Grade: 1.0 (Top 1%)

## PROJECTS

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### Gitlytics | Python, Flask, React, PostgreSQL, Docker

June 2020 – Present

- Developed a full-stack web application using with Flask serving a REST API with React as the frontend
- Implemented GitHub OAuth to get data from user's repositories
- Visualized GitHub data to show collaboration
- Used Celery and Redis for asynchronous tasks

### Simple Paintball | Spigot API, Java, Maven, TravisCI, Git

May 2018 – May 2020

- Developed a Minecraft server plugin to entertain kids during free time for a previous job
- Published plugin to websites gaining 2K+ downloads and an average 4.5/5-star review
- Implemented continuous delivery using TravisCI to build the plugin upon new a release
- Collaborated with Minecraft server administrators to suggest features and get feedback about the plugin

## TECHNICAL SKILLS

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**Languages:** Java, Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS, R

**Frameworks:** React, Node.js, Flask, JUnit, WordPress, Material-UI, FastAPI

**Developer Tools:** Git, Docker, TravisCI, Google Cloud Platform, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse

**Libraries:** pandas, NumPy, Matplotlib

## SCHOLARSHIP

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*Stiftung der deutschen Wirtschaft*

*Oct. 2016 – Sep. 2023*

- Awarded for academic excellence and social engagement