MARTIN ZUGSCHWERT

Computer Scientist, Data Architect, & Researcher

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https://github.com/MartinZugs

COMPUTER SCIENCE EXPERIENCE

Cloud Services Intern
iManage

📅 June 2019 – Ongoing   📍 Chicago, IL

- Developed, tested, and deployed the entirety of a fully scalable code infrastructure for a customer facing product that monitors thousands of client environments using Python, the iManage Work and Share V1 and V2 REST APIs, docker containers, and distributed MySQL databases and reports any service outages to a client facing status website utilizing a REST API
- Built a MySQL database that collects, and subsequently analyzes, client usage data so that the Cloud Services Team can identify any at risk customers and reach out to them as soon as possible
- Wrote numerous Python scripts that make use of the Salesforce API, Zendesk API, and an internal CRUD API to populate the MySQL database discussed above with daily usage data that can be used for reporting via Tableau reports
- Optimized the process of bulk upgrades (saving 2 hours of manual employee work every upgrade cycle) by writing a Python script using the Selenium Headless Chrome Driver to automatically check a client's front-end and output any errors to a repository for further investigation by the Cloud Operations team

President and Chair
DON'T PANIC! Computer Science Club, Loyola's ACM Chapter

📅 July 2019 – June 2020   📍 Chicago, IL

- Increased the size of the club by over 80% through marketing campaigns geared towards new students at club fairs
- Provided networking opportunities for club members by organizing a tour of 1871, a QA session with an Alumni, a tour of the iManage office, and a Slalom networking event
- Increased the quality of club member's resumes by organizing and running a resume workshop based off of information I learned attending an event at the Google offices in Chicago
- Increased the resources available for the club by giving speeches to the entire Computer Science department twice at department events

Lead Undergraduate Researcher
Loyola University Chicago, FYRE Program

📅 May 2019   📍 Chicago, IL

- Led a team of 2 Freshman and 1 Junior to create a prototype Android app written in Java, entitled "Talk Motion", that allows for those who are mute to speak through the motions of their phone
- Created a poster and presented at the Annual Loyola FYRE Presentation
- Laid the groundwork for continuation on the work for the project by fully documenting all of the code and writing a detailed summary

Marketing, Sales, and Technology Intern
Harris & Harris

📅 June 2018 – May 2019   📍 Chicago, IL

- Saved the company hundreds of hours of unnecessary employee work by designing a Java program that sorted and organized data automatically

EDUCATION

M.S. in Computer Science
Loyola University Chicago

📅 Expected Graduation in December 2021

B.S. in Computer Science - Minor in Information Systems
Loyola University Chicago

📅 Expected Graduation in December 2020

PROJECTS

⚙️ **UFC Fight Prediction**
My group and I used a massive data set taken from Kaggle of UFC fights and created numerous Machine Learning models using Scikit-learn (SVM, Logistic Regression, and Perceptron) and Keras to predict who would be the winner in a given fight. I then took the Keras model and ran it on a Google Cloud Virtual Machine with 24 CPUs in order to optimize running time. We ended up getting 68% accuracy
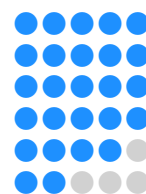
git **GitHub Analytics Dashboard**
For my lab, I wrote numerous Python scripts to scrape metrics from a given repository, using the GitHub V3 and V4 APIs, and write the results to multiple CSVs. I then ran machine learning classification algorithms in Python to predict if issues were bug fixes or suggestions with 56% accuracy

🤖 **Talk Motion Android App**
My group and I created an app that allows for those who are vocally impaired to speak via very basic motions. This app was created in Android Studio and written in Java and uses data from the Linear Accelerometer and Gravity sensors to change States and recognize motions

RELEVANT SKILLS

Python
REST APIs
SQL
MySQL
Docker
MongoDB

OTHER EXPERIENCE

Researcher
Software System Laboratory

📅 August 2019 – Ongoing   📍 Chicago, IL

- Pulled numerous GitHub metrics (number of issues, commits, lines of code, etc.) via python scripting and wrote this data to local CSV storage
- Built Natural Language Processing Scikit-learn models to classify if a given issue in a repository is an issue or a bug fix
- Thoroughly documented code so that it could be easily readable and used by future members of the lab

Treasurer
Loyola Bioethics Club

📅 January 2019 – December 2019   📍 Chicago, IL

- Worked closely with the office for Student Activities to secure funding for numerous events
- Ensured that more than enough food was delivered on time to every event
- Directed a meeting with the Executive Board at the beginning of the semester to decide exactly what would be ordered for each meeting
- Conducted research and contacted retailers to find the best rates

Writing Center Tutor
Loyola University Chicago

📅 August 2018 – December 2018   📍 Chicago, IL

- Assisted English as a Second Language students with their English language mechanics by working through their papers together
- Increased the accessibility of the Writing Center by working with the Director of the Writing Center and my peers to design a new appointment style centered around speaking
- Improved the writing of all clients by working through their unique issues and creatively solving them together

HACKATHONS

Uncommon Hacks
University of Chicago

📅 February 15-26, 2020

- Created a react native application to find local restaurants in a style similar to Tinder
- Wrote the back-end of the app that utilized the Yelp API to receive data for the surrounding area
- Presented to a total of 30+ judges one after another

Dare Mighty Things
McDonald's Corporate Headquarters

📅 October 26-28, 2019

- Created a react native application to get food to homeless shelters
- Presented to a panel of 20+ professional judges
- Placed in the top ten of 70+ teams

Smartcar
Nortwestern University

📅 October 26-27, 2019

- Created a web application to plan roadtrips
- Presented to members of the Smartcar team
- Placed in the top half out of 20+ teams

MORE SKILLS

ER Diagramming	●●●●●○
Relational Modeling	●●●●●○
Dimensional Modeling	●●●●●○
Microsoft Excel	●●●●○○
Web Programming Languages	●●●○○○
AWS	●●●○○○
Google Cloud	●●●○○○
R	●●○○○○
C	●○○○○○

RELEVANT COURSES

- Database Programming
- Machine Learning
- Advanced Data Analytics
- Database Systems
- Business Information Systems
- Algorithms
- Data Structures