

Marc-Anthony Bauer

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WORK EXPERIENCE

Aflorithmic

ML Research Engineer – Barcelona, full-time

Mar 2022 – Aug 2022

- Trained and improved deep-learning-based text-to-speech (TTS) models
- Built a flexible ad-hoc search engine for TTS voices and sound templates
- Implemented a microservice for finite-state-based text normalisation
- Laid off as part of downsizing efforts after a failed Series B funding round

Aflorithmic

Research Engineer Intern – London & Barcelona, full-time

Sep 2021 – Dec 2021

- Implemented a program for generative personalised children's audiobooks, reducing time of creation for each audiobook from 2 hours to 30 seconds
- Created TTS scripts, considering complex issues such as phoneme balance, topical coverage, and readability
- Developed a customer-oriented system for fixing IPA pronunciations

Department of Sociology LMU

IT-Support Specialist – Munich, part-time

Jul 2018 – Jul 2019

- Managed 150 computers through Active Directory, translated the German web presence to English, fully implemented in CMS Fiona and HTML/CSS
- Revamped and partially automated the lending process for software, field recorders, etc.
- Trained a successor for daily responsibilities of IT support and website management

PERSONAL PROJECTS

Songcrawler

Independent Project [link]

Oct 2022 – Nov 2022

- Built a Command-line interface for data scientists to gather musical features and lyrics for their favourite tracks
- Free-text search and interactive selection when querying resources from the API
- Designed and implemented using OOP and MVC principles
- Implemented parallelisation through subprocesses when querying multiple songs; reduced time by more than 85%

VICE Headline Generator

Independent Project [link]

Sep 2022 – Oct 2022

- Fine-tuned BLOOM to generate titles for the VICE YouTube channel
- Queried video titles using YouTube's proprietary API and manually cleaned resulting data using RegEx, Levenshtein distance and langdetect
- Created a publicly available Gradio demo and open-sourced the model on Hugging Face with more than 100 downloads
- Published a "how-to" article about the entire process

EDUCATION

Ludwig-Maximilians-Universität München

Major: BSc. Computational Linguistics (CL), Minor: Computer Science

Sep 2017 – Mar 2022

- GPA of 1.79 (1.0 is the best, 5.0 the worst)
- Bachelors Thesis "Towards Hate Speech Detection Benchmarking": investigated, filtered, and combined existing hate speech datasets to overcome their individual biases and shortcomings; received full marks (1.0)
- Gained an understanding of a variety of supervised and unsupervised machine learning algorithms applied to complex tasks, such as named entity recognition and information retrieval
- Learnt methods for processing syntax and morphology using NLTK and SpaCy
- Minor in computer science covering algorithms and data structures, operating systems, databases, and practical training in software engineering

The University of Hong Kong 香港大學

Sep 2019 – Dec 2020

- Selected as one out of three students to spend a semester abroad at the University of Hong Kong in autumn 2019
- Led a group project on heart disease prediction for the course "Statistical Learning" using R Studio
- Further participated in courses on computer vision, linear algebra and Cantonese

National Chengchi University 國立政治大學

Feb 2020 – Jun 2020

- Prototyped a craigslist redesign for a User Experience group project
- Participated in a Mandarin course, applying learnt language skills on a day-to-day basis

ADDITIONAL EXPERIENCE

Computational Linguistics Student Association

Member of the Student Association

Apr 2018 – Jul 2021

Elected Student Ambassador

Sep 2018 – Sep 2019

- Elected head of the Computational Linguistics student association, representing more than 300 students in two student councils
- Revamped parts of the master's programme, allowing students without prior programming experience to take select undergraduate courses
- Oversaw financing of smaller conferences and university-wide festivals
- Helped issue press statements regarding global topics

SKILLS & INTERESTS

- **Programming Languages:** Python, Java, HTML, CSS, JavaScript, Bash/Shell scripts
- **Other Tech:** SpaCy, PyTorch, Hugging Face, NLTK, MySQL, CI/CD, Kubeflow, Docker, AWS, Linux, Git
- **Languages:**
 - Native: German, English
 - Basic: Spanish, Chinese, French