# DONALD PFAFFMANN

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#### **EXPERIENCE**

**Springer Nature Technology and Publishing Solutions [Java**] February 2019 - August 2019 Intern Pune, India

- · Implemented a feedback loop that increases the number of data samples for an existing machine learning algorithm. Data curation was the major challenge of this task. F-Measure of a model retrained on the newly available data improved by 16.83%.
- · Implemented a Convolutional Neural Network (CNN) that classifies plain text (e-mails) into time related categories using a static word embedding model. Major challenges were implementing and testing proper techniques of data pre-processing and machine learning algorithms. Work on this module finished with the CNN classifier achieving a F-Measure of 85% and the provision of a Named Entity Recognizer, which is capable of extracting and normalizing time entities.

### **PROJECTS**

All mentioned projects are part of my curriculum at the University of Applied Sciences Kaiserslautern.

### Mario-AI [Java] (Grade: 1.0)<sup>1</sup>

2nd year

- · Implemented an autonomous agent operating Mario through randomly generated levels by utilizing A\*-search in a team of two.
- · The major challenge was coming up with a proper heuristic that maximizes the score of Mario.
- · Placed third in an official competition held among all course members.

## Decentralized file transfer desktop application [Java, JavaFX] (Grade: 1.0) 3rd year

- · Developed a decentralized file transfer desktop application with a GUI in a team of two.
- · Making the application highly error-resistant to loss of internet connection was the major challenge.

### Campusboard-App [Ionic, Angular, TypeScript] (Grade: 1.0)

3rd year

- · Contribution to the further development of the official mobile application of the university in a group of four.
- · Familiarizing with exisiting code and learning TypeScript were the major challenges.
- · Implemented the functionality of capturing present students in exams by scanning their student license with nfc in a team of two.

### DoublingBalls - Android mobile game [Java] (Grade: 1.0)

2nd year

- · Developed a Run & Gun game for Android smartphones in a team of two.
- · Major challenges were internal state management and keeping multiple threads (visualization, calculation) synchronized.
- · Running game that could be published in the PlayStore as is.

### **EDUCATION**

#### University of Applied Sciences Kaiserslautern

Pursuing B.Sc. in Applied Computer Science (Overall GPA: 1,4)<sup>2</sup>

Zweibrücken, Germany October 2016 - current

<sup>&</sup>lt;sup>1</sup> on a scale of 1-5 (university level), where 1 is the best grade; approximately equivalent to an "A" grade.

<sup>&</sup>lt;sup>2</sup>approximately equivalent to an overall "A-" grade.