

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: 1.0¹ 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 existing 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.
- The resulting game could be published in the PlayStore as is.

EDUCATION

University of Applied Sciences Kaiserslautern *Zweibrücken, Germany*
Pursuing B.Sc. in Applied Computer Science, **GPA: 1,4²** October 2016 - current

¹ On a scale of 1-5 (university level), where 1 is the best grade; approximately equivalent to an "A" grade.

² Approximately equivalent to an overall "A-" grade.