Alissia Rugina

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EDUCATION

Delft University of Technology — **Delft, The Netherlands**
Bachelors of Computer Science & Engineering — June 2023
●Followed the Data focused track. Coursework covered topics related to Algorithm Design, Data Structures, Software Development, Theory of Computation & more.

Vrije Universiteit Amsterdam — **Amsterdam, The Netherlands**
Minor Program in Applied Econometrics — Sep 2022 - Feb 2023
●4 month program to explore econometric modelling in areas such as finance and economics. Course work included modeling and forecasting time series, estimating causal effects, volatility modeling, etc…

SKILLS & INTERESTS

Tools & Technologies
Java | Python | React | Scala | R | SQL | Git | Excel | Figma
Languages
English, French, Romanian

WORK EXPERIENCE

Husky Intelligent Fridges — **Amsterdam, The Netherlands**
Software Engineer Intern (10-weeks) — *April - June 2022*

- Worked on a team of 5 students to develop an Electron Application for Factory Testing *Husky Intelligent Fridges*. The application consisted of a test workflow that instructed users to follow steps and answer questions required to test the "smart" fridge's components (lights, door lock, temperature, etc..), the users' answers were compared to the fridge sensors' readings to determine if the fridge components worked correctly.
- The application was developed with React and made use of the MQTT library for communication with the fridge sensors'. We worked in Sprints applying Scrum methodologies, using Git to assign Issues, Sprint Planning, and Code Reviews. Attended daily stand ups and Sprint Retrospective meetings. Derived application's requirements based on meetings with stakeholders. Designed the UI with Storyboards (Mira). Used Jest for testing.

ACADEMIC & PERSONAL PROJECTS

Backend Application of Microservices

- Developed a backend Spring Boot application using a microservices architecture as part of the Software Engineering Methods course at TU Delft. Used Rest Template for API calls and endpoints to connect the services. Wrote unit tests and integration testing. Used Git, Java, Junit (testing), Postman.

Neural Network Classification Program

- Developed a feed-forward neural network with a back-propagation training algorithm. Using training data, trained the neural network to classify store products based on their features. Used Python and it's NumPy Library.

Econometrics Case Study

- Retrieved data properties of restaurants (csv file), including their online review ratings and location. Cleaned the data, analyzed data distributions, and applied multiple models: K-means Clustering, and Multiple Regression to explore the relationship between restaurant properties and their online reviews. Used R, Python (pandas, seaborn, matplotlib libraries).

Chat Application

- Developed a lecture chat application with user interface, as a Spring Boot Project. Allowed users with different roles (student, lecturer, moderator) to join the same chatroom and share questions and answers.
- Incorporated a Model View Service Controller Pattern in the design.
- Used Git, Java, Junit.

Machine Learning to translate between Affect Representation Schemes

- For my final Bachelor Thesis project at TU Delft, I found data of Music Affect Content (from a previous study) annotated with two different Affect Representation Schemes (used in Psychology/Emotion studies), and I explored a translation task between different Affect Representation Schemes using Machine learning models.
- I used Python's scikit learn library to train models' (K-Nearest Neighbors, Decision Tree Classifiers, and Logistic Regressions) and evaluate their performance in translating between the two emotion schemes.

Personal Website: React Project

- I developed a multi-page personal website using React. Designed web pages and styling using JS and css, and made use of libraries: React Router DOM, React Bootstrap.