

JESSE HANTULA

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EDUCATION

University of Helsinki

Masters in Data Science

- GPA: 4.00/5
- Relevant courses: Introduction to Machine Learning, Engineering of Machine Learning Systems, Statistics for Data Science

Helsinki, Finland

September 2024 - Present

BSc in Computer Science

- GPA: 4.54/5
- Relevant courses: Data Structures & Algorithms, Software Development Methods, Full Stack Development

September 2021 - June 2024

Nashua High School South

High School Diploma

Nashua, NH, USA

August 2017 - June 2021

WORK EXPERIENCE

DB Solo, LLC

Software Engineering Intern

Nashua, NH, USA

May 2023 - August 2023

- Designed and implemented a command-line interface to Offset Explorer (Java-based GUI application for managing Apache Kafka clusters). Also implemented several new UI-features to Offset Explorer using Java Swing classes.
- Wrote unit tests using JUnit to test and validate the implemented features.
- Added new features to a Java-based database management application DB Solo.
- Utilized Git for version control and GitHub pull requests for code reviews.
- Manually tested new features against a local Kafka node running in Docker as well as cloud-based Azure Event Hubs cluster.

Visma

Software Development Intern

Helsinki, Finland

May 2024 - Current

- Designed and developed new features for an e-invoicing application known as Maventa using Ruby on Rails, enhancing user experience.
- Migrated background job processing system from Beanstalkd to Sidekiq, resulting in reduced infrastructure costs and improved job processing efficiency.
- Implemented rigorous testing protocols with RSpec to ensure robustness and reliability of software components, as well as conducted thorough tests in both local and staging environments prior to pushing updates to the production environment.
- Used GitLab for version control and code reviews, enhancing software delivery with automated CI/CD pipelines for testing and deployment, reducing deployment times and improving processes while maintaining code quality.
- Participated in mob programming sessions to solve complex challenges in API development, fostering a collaborative and inclusive coding environment.
- Contributed to the design and deployment of RESTful APIs, enabling seamless communication between the e-invoicing application and external services.
- Utilized Jira for efficient management of project tasks, bug tracking, and sprint planning, ensuring organized workflow and timely resolution of issues across all phases of the software development lifecycle.

LEADERSHIP EXPERIENCE

University of Helsinki

Teaching assistant

Helsinki, Finland

September 2023 - March 2024

- Facilitated multiple under-graduate level courses relating to programming and computing platforms, providing support to roughly 50 students per class.
- Designed and delivered engaging tutorial sessions and workshops to reinforce lecture material, improving student understanding and academic performance.
- Created and graded assignments, quizzes, and exams, providing timely and constructive feedback to students.

PROJECTS

HSL Bike Planner

- Initiated and executed a data analysis project focusing on Helsinki public city bike usage in correlation with Helsinki weather conditions.
- Gathered and processed multiple datasets, which were then used to develop a predictive model that is used to forecast bike utilization for future dates.
- Designed and implemented a user-friendly UI map, enabling users to visualize and interact with predicted bike stop occupancy.

Connect 4 AI

- Developed a Connect 4 AI using the minimax algorithm, enhancing decision-making capabilities for the computer player in the game. Implemented alpha-beta pruning to optimize the algorithm and make the AI slightly more efficient.
- Designed and implemented a user-friendly GUI using Java swing classes, providing an interactive platform for users to play against the AI.
- Employed JUnit testing framework to test the functionality and correctness of the Connect 4 AI, ensuring optimal performance.

MindLink

- Led the development of MindLink, a React Native mobile app, built during the Junction 2024 Hackathon, that connects job seekers with companies based on shared values such as mental health needs, work-life balance, and company culture..
- Integrated the backend using Django and GraphQL, enabling seamless communication between the mobile app and the server, allowing users to match with companies based on personalized profiles and preferences within a tight hackathon timeline (approximately 40 hours).
- Developed key features to enhance interaction between job seekers and companies, including a dynamic homepage that displays the top-matched companies based on a personalized algorithm, which evaluates user values and information gathered during the app registration process.

TECHNICAL SKILLS

- *Languages:* Python, Java, R, SQL, HTML, JavaScript, Haskell, Ruby
- *Technologies:* Microsoft Azure, AWS, React, GraphQL, Git, VS Code, IntelliJ, Node.js, Apache Kafka, Docker, Terraform