26 September 2023
AgileMasters

Project Team Setup

CT0090 · Software Engineering Project

Ca' Foscari
University
of Venice

Team Information

In the vast realm of software engineering, a new team emerges from the shadows, ready to tackle the challenges of the digital age. We are **AgileMasters**, a trio of dedicated software engineers, united by our passion for creating impactful software solutions. Our synergy, combined with our diverse skill sets, positions us uniquely to address the multifaceted demands of modern software projects.

Members and Roles

Each member of our team has been meticulously chosen and assigned specific roles in line with the SCRUM methodology. This ensures a balanced distribution of responsibilities and efficient project management.

Member Name	Mail	Phone	Role
André Ramolivaz	891923@stud.unive.it	(+39)3423779629	Developer
Alberto Tomasin	892614@stud.unive.it	(+39)3701556359	Scrum Master & Product Owner
Simone Dinato	892539@stud.unive.it	(+39)3428232006	Developer

Role Descriptions

➤ **Product Owner**: The visionary, responsible for defining product features, prioritizing them, and ensuring the team's efforts align with stakeholder expectations.

➤ **Scrum Master**: The facilitator, ensuring the team adheres to Scrum practices, removes obstacles, and works efficiently.

➤ **Developer**: The builder, responsible for designing, coding, testing, and implementing the features defined by the Product Owner.

Tools and Infrastructure identified

In our quest for excellence, we have chosen to harness the power of **Jira** for project management and **Confluence** for documentation. These tools, with their robust features and integrative capabilities, will be instrumental in our journey. The project has been initialized, the team has been set up, and the first tasks have been assigned. With these tools as our allies, we are poised to navigate the complexities of our project with clarity and precision.

Document Versioning

To ensure transparency and traceability, we maintain a version history of this document. Each version captures the evolution of our team's setup and decisions.

Version	Date	Description
1.0	21 September 2023	Initial document creation and writing.
1.1	23 September 2023	Attached CVs of team members.

Attachments

For a deeper understanding of each member's qualifications and experiences, the CVs of all team members are attached at the end of this document. We believe that our collective expertise will be the cornerstone of our project's success.

ANDRÉ RAMOLIVAZ

BA Computer Science

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ABOUT ME

Technical Skills: R, Python, C, C++, Java, PHP, HTML, CSS, JavaScript, MySQL, PostgreSQL
Languages: Italian (native), French (fluent), English (fluent)

WORK EXPERIENCE

Incoming Trainee in Robotic Process Automation & Data Analytics   **PwC - PricewaterhouseCoopers**, Milan, Italy

⟨⟩ `Python` `Java` `RPA`   📅 10/2023 – present

Data Scientist Intern, Supervisory Technology and Data Division   **ECB - European Central Bank**, Frankfurt, Germany

⟨⟩ `Python` `Mendix` `Machine Learning` `Credit Risk Management` `Data Manipulation`   📅 09/2022 – 12/2022

- Developed and implemented data cleaning and preprocessing techniques using R for a 4TB of unstructured data which **reduced total process time by 15%**.
- Led a machine learning project in Python utilizing Decision Tree, Random Forest, and XGBClassifier to predict NPE/PE exposures during banking supervision. Addressed class imbalance through supervised techniques such as Cluster Centroids under-sampling **enhancing model performance and accuracy by 20%**.
- Developed a Flask web app for the prediction, integrating the previous trained machine learning models using Pickle, and crafting an intuitive user interface with React for input submission and result presentation.
- Contributed to developing a software tool for ECB's internal models, **enhancing the language model's NER by 10%** using Reinforcement Learning.
- Acquired Scrum project management expertise and applied it to effectively coordinate a huge text mining project involving external and internal stakeholders, while managing and tracking IT consultant tasks.

Substitute Teacher of Calculus and Statistics for High School   **ITPR Corrado Gex**, Aosta Valley, Italy

⟨⟩ `Calculus` `Statistics` `Teaching`   📅 09/2021 - 02/2022

- Prepared lessons and exams for 70+ students from different classes and levels.
- Supported students in analytical assignment and provide classes to fosters specific topics.

Software Engineer Intern, Integrated Technology Services Division   **ARPA Valle d'Aosta**, Aosta Valley, Italy

⟨⟩ `Calculus` `Statistics` `Teaching`   📅 09/2020 - 12/2020

- Developed an Arduino-based prototype for tracking environmental parameters, with a sensor system that wirelessly transmits data to a mobile app for trend analysis and possible climate implications.
- Created a phone app using Flutter to collect data, and display the results with additional data analytics insights.
- Presented the team work project to the BB-CLEAN conference for the Interreg Alpine Space project and to Edutech 2021 as a low cost robotic prototype of eco-sustainability and environmental monitoring.

EDUCATION

Bachelor's degree in Computer Science   **Ca'Foscari University of Venice**

📋 26/30 GPA   📅 Sept 2021 - Now

RELEVANT PROJECTS

A Social Network Analysis of Central Banks   **University course project**

⟨⟩ `Python` `NLP` `Data Mining` `Graph Knowledge`   ⌾ andreramolivaz/Social_Network_Analysis

- Implemented web-mining and API libraries to collect data and preprocessing techniques using Pandas.
- Performed data cleaning (e.g. tokenization, stopword removal, and lemmatization), applied NLTK and VADER with domain-specific dictionaries to enhance tweet sentiment and emotion analysis.
- Extracted and visualized top hashtags using Pandas and Seaborn, examining frequency and sentiment relationships.
- Applied Gensim's LDA for topic extraction and NetworkX for topic-word association visualization.

ALBERTO TOMASIN

BA Computer Science

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ABOUT ME

Technical Skills: R, Python, PostgreSQL, PostGIS, MySQL, PHP, HTML, CSS, JavaScript, Java, C, C++, Bash
Interests: data analysis, data manipulation, remote sensing, backend development
Languages: Italian (native), English (fluent)

WORK EXPERIENCE

Istituto Zooprofilattico Speriementale delle Venezie

`</>` `R` `Python` `PHP` `SQL` `PostGIS`

Software developer, Legnaro, Padova

📅 December 2021 – Present

- Development and maintenance of a tool internally used by veterinarians to record, monitor and manage avian influence in Europe.
- Developing a GIS web app to help WOAH manage and store its geospatial data.
- Developing and mantaining a GIS tool designed to help veterineries record, store and manage African Swine fever in the italian soil.
- Using of remote sensing tecniques to extract images from SENTINEL and MODIS satellites and produce different indexed (vegetation, temperature)
- Responsible for the maintenance of GIS apps and remote sensing procedures.

IT Consultant

`</>` `PHP` `CSS` `HTML` `Wordpress` `Python`

JEVE - Junior Enterprise of Venice, Venice

📅 May 2022 – Mar 2023

- Managed IT's infrastructure.
- Developed and secured web applications, ensuring robust cybersecurity measures.
- Automated key processes, mitigating operational and IT risks. (e.g., automated email profiling, web scraping for lead generation)

EDUCATION

Bachelor's degree in Computer Science

📋 25/30 GPA

Ca'Foscari University of Venice

📅 Sept 2021 - Present

- Relevant courses: Data and Web Mining, Data Analysis, Predictive Analysis, Algorithms and Data Structures, Probability and Statistics, Object Oriented Programming, DataBases.

Diploma in informatics

📋 70/100

I.T.I. Severi Padova

📅 Sep 2016 - June 2021

RELEVANT PROJECTS

EUResearchHub - 2023

`</>` `Python` `HTML` `HTML` `CSS` `PostgreSQL`

University course project

 therealtoma/EUResearchHub

- Leveraged the robust Flask framework to deliver a lightweight and modular web application experience.
- Incorporated advanced authentication routes to safeguard user data and ensure secure access.
- Utilized structured database models for seamless data management and retrieval.
- Created a dedicated utility module to streamline common tasks and enhance code reusability.

Dama - 2023

`</>` `C++` `Docker`

University course project

 therealtoma/Dama

- Leveraged Docker containers to simulate real-world environments, meticulously debugging and ensuring zero memory leaks in the game's core logic.
- Implemented a sophisticated game loop in play.cpp, incorporating move validation, player turn management, and game state tracking.
- Designed a detailed player class in player.cpp and player.hpp, encapsulating attributes such as player color, available moves, and capturing mechanics.
- Developed a robust move verification system in verify.cpp, ensuring only valid moves are executed, preserving the game's strategic depth and integrity.

SIMONE DINATO

Undergraduate BA Computer Science

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ABOUT ME

Technical Skills: C/C++, R, Phyton, Java, PostgreSQL, MySQL, PHP, HTML, CSS
Interests: Data Analysis, Trading, Web design, UI/UX, Emotional Intelligence, Personal Development.
Languages: Italian (native), English (fluent), Spanish (elementary)

WORK EXPERIENCE

IT Analyst Intern   **Nuova Ompi S.R.L.**, Padua
</> [Microsoft SQL] [LIMS] [Decisyon]   📅 July 2023 – Sep 2023

- Reduced SQL procedure execution time from 10 minutes to just 3 seconds, achieving a 99.6% computational efficiency boost.
- Spearheaded the integration of data monitors in production areas, paving the way for advanced statistical analysis with Decisyon.
- Enhanced device tracking in the production line, slashing remote access times.
- Leveraged LIMS for complex data queries, streamlining data retrieval and analysis processes.
- Collaborated with the production team to integrate LIMS with Microsoft SQL, ensuring real-time data synchronization.
- Designed and implemented custom SQL scripts to automate data extraction from LIMS, reducing manual intervention.

IT Consultant   **JEVE - Junior Enterprise of Venice**, Venice
</> [PHP] [CSS] [HTML] [WORDPRESS] [PYTHON]   📅 May 2022 – Mar 2023

- Led data analysis for SMIs, leveraging vast internal and external datasets.
- Developed and secured web applications, ensuring robust cybersecurity measures.
- Automated key processes, mitigating operational and IT risks. (e.g., automated email profiling, web scraping for lead generation)
- Utilized Python for data processing and analysis, extracting valuable insights.
- Implemented WordPress plugins to enhance website functionality and user experience.

EDUCATION

Bachelor's degree in Computer Science   **Ca'Foscari University of Venice**
🗒 26/30 GPA   📅 Sept 2021 - Now

- Relevant courses: Data and Web Mining, Calculus, Data Analysis, Predictive Analysis, Linear Algebra, Algorithms and Data Structures, Probability and Statistics, Software Engineering, DataBases.
- Activities: Consultant student association JEVE - Junior Enterprise Ca' Foscari Venezia.

RELEVANT PROJECTS

EUResearchHub - 2023   **University course project**
</> [Python] [HTML] [HTML] [CSS] [MySQL]   ⬤ simonedinato/EUResearchHub

- Leveraged the robust Flask framework to deliver a lightweight and modular web application experience.
- Incorporated advanced authentication routes to safeguard user data and ensure secure access.
- Utilized structured database models for seamless data management and retrieval.
- Created a dedicated utility module to streamline common tasks and enhance code reusability.

Json Parser - 2023   **University course project**
</> [C++]   ⬤ simonedinato/CT0442-JsonParser

- Developed a robust JSON parser in C++ capable of parsing complex JSON structures.
- Implemented a comprehensive suite of overloaded operators, including assignment, equality, inequality, and array access operators, to facilitate intuitive JSON object manipulation.
- Enhanced the parser's efficiency by utilizing C++ Standard Library features, such as std::string, std::vector, and std::map.
- Ensured type-safety and flexibility by designing a JsonValue class that can seamlessly handle different JSON data types, including strings, numbers, objects, and arrays.
- Incorporated error-handling mechanisms to detect and manage parsing errors, providing informative feedback to users.