

Alex Costea

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EXPERIENCE

Software Engineer

July 2022 – Present

SAP Romania, Full-time

Bucharest, Romania

- Lead the development of a fully functional demo for an AI Assistant web app which won first place and further funding in an internal contest, by integrating the front-end and the Python and Flask back-end with LangChain
- Implemented new features for the front-end of a Commerce Cloud project using TypeScript, Angular and CSS, such as validating user-inserted data, integrating back-end services using HTTP and developing new components
- Developed new data isolation features for an SAP Commerce Cloud system, which allowed a client's multi-server system to migrate to a single server solution while avoiding data being wrongly exposed
- Debugged and developed solutions for numerous Java, Spring and SQL back-end issues, as well as JavaScript, JQuery and Angular front-end issues, within SAP Commerce Cloud systems for multi-national clients
- Set up the Azure environment and migrated a Commerce Cloud project database from on-premises to the Cloud, by modifying a C# script to fit the requirements of the specific project
- Provided mentorship to co-workers for taking the Oracle Certified Associate Java exam, thus contributing to their success in their certifications

Data Analyst

September 2018

CEREFREA Villa Noël, Internship

Bucharest, Romania

- Crawled the web and scraped online articles from extremist websites, in order to facilitate their analysis
- Performed statistical and natural language analysis of the collected data using the NLTK library in Python

EDUCATION

University of Amsterdam

Amsterdam, Netherlands

Bachelor of Science in Sociology. GPA: 7.75 (US equivalent: A)

September 2019 – August 2022

- Wrote Bachelor's thesis on the correlation between centrality methods and social influence, with data collected from social media and statistically analysed using Python and SPSS
- Completed courses in Introduction to Statistics and Advanced Statistics

PROJECTS

Wiles (language & online interpreter) | *Kotlin, Java, TypeScript, Angular, AWS*

August 2022 – Present

- Designed the specifications for a programming language, supporting features such as conditional statements, loops, basic data types, first-class functions, generics, sum types, hash maps, pattern matching and type inference
- Developed the software architecture for the language's interpreter using design patterns in order to optimize for code reuse, maintainability and performance
- Implemented algorithms to parse the input code into an Abstract Syntax Tree, as well as to check the input code for correctness and type safety and to infer unspecified type definitions
- Created an interpreter which executes the commands corresponding to the type-checked syntax tree
- Built a web app which allows users to interact with the Wiles interpreter online, developed using TypeScript and Angular for the front-end and Java and Spring Web for the back-end. Deployed the web app using AWS.
- Wrote extensive tests to thoroughly test the application for correctness, achieving 90%+ test coverage

Greatest Hits! (music charts simulator) | *Java, JavaScript, AWS, Spring, Thymeleaf*

2020 – Present

- Designed a realistic music charts mathematical model in order to simulate the progression of songs' success
- Persisted charts data using a custom JSON-based data format
- Implemented a REST API using Spring Web and Thymeleaf for access to songs, artists and chart history
- Developed front-end functionality corresponding to the REST API's features using JavaScript and CSS
- Configured Apache Tomcat server and deployed the application to Amazon Web Services

TECHNICAL SKILLS

Languages: Java (Oracle Certified Associate), Python, Kotlin, JavaScript, TypeScript, HTML, CSS, C#, SPSS

Frameworks and Libraries: Angular, Spring, Spring Boot, Flask, Node.js, JUnit, NLTK, Thymeleaf, JQuery

Developer Tools: Git, Docker, Amazon Web Services, VS Code, IntelliJ, Apache Ant, Maven, Gradle, Postman

Technologies: Apache Tomcat, JSON, SQL, Azure, AWS, REST APIs, HTTP, Regex, Ajax, Windows, Linux, Mac