I am a **Senior Full-stack Software Engineer** with more than **10 years of experience**. **SDE II** at **Amazon Business Prime** where I focused on delivering benefits, benefit usage, collection, tracking and aggregation in the **backend**, as well as the Business Prime sign-up process and engagement rendering in the **frontend**. I utilized a variety of **AWS** services, including **Lambda**, **DynamoDB**, **EC2**, **CloudWatch**, **ECS**, **SQS**, **SNS**, **S3**, **IAM**, **Evidently**, and **CloudWatch**. Previously, as an **SDE** for both the **European Union** and the **Spanish Government** for **five years**, I worked with a range of technologies such as **Kafka**, **Apache Storm Trident**, **ElasticSearch**, **Maven**, **MongoDB**, **Kibana**, **Angular**, **NodeJS**, **Jenkins**, **Docker**, **LibGDX** and native **Android API**.
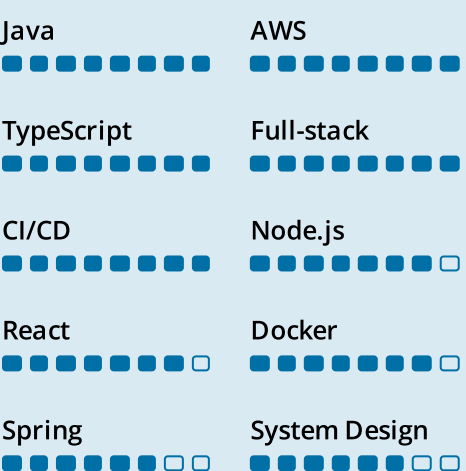
Dan Cristian Rotaru

Senior Software Engineer

- Spain, interviewing for Perth, Western Australia (Visa sponsorship required)
- September 09, 1992
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- crdesarrollo
- dancristianrotaru
- Seek - dancristianrotaru
- IEEE Xplore - Dan Cristian Rotaru
- Google Scholar - Dan C. Rotaru
- ResearchGate - Dan Cristian Rotaru

SKILLS

Java	AWS
■■■■■■■■□	■■■■■■■■□
TypeScript	Full-stack
■■■■■■■■□	■■■■■■■■□
CI/CD	Node.js
■■■■■■■□□	■■■■■■■□□
React	Docker
■■■■■■■□□	■■■■■■■□□
Spring	System Design
■■■■■■□□□	■■■■■■□□□

LANGUAGES

English	Spanish	Romanian
Expert	Expert	Expert
■■■■■■■■■	■■■■■■■■■	■■■■■■■■■

AWARDS

Best Serious Game: 'UNA HISTORIA MÁS'
Hack For Good 2016 (Hackathon)

1 - **First place 'Best Serious Game'** (by UCM).
2 - Second place 'Best Project for Access and Protection of Open Educational Resources' (by Comillas Pontifical University).
3 - Second place 'Best Project for Education, Cognitive Accessibility, Intellectual Disability' (by UNIR).

Best Serious Game: 'UN BAILE, UN SUEÑO'
National Spanish Ballet 2016 (Hackathon)

Received first place for best game for raising awareness about traditional Spanish dance among kids aged 8 to 12 years (by Spanish National Ballet).

CERTIFICATIONS

AWS Solutions Architect Associate   (June 30, 2023)
Amazon

Currently undertaking.
Expected completion June 2023.

Advanced Google Analytics   (August 31, 2015)
Google

Issued August 2015.
Expired May 2017.

REFERENCES

Elvis Frank Canchari Lapa
Worked together
Atlassian & DevOps SME: *After working with Dan, I highly recommend him for his exceptional work and skills using Java, Node, React, and applying AWS best practices. He consistently demonstrates a strong sense of ownership, bias for action, and a track record of delivering results.*

Baltasar Fernández-Manjón
Direct manager
Honorary Chair on Digital Education and Serious Games: *Dan is an expert programmer, able to work in multinational teams and results oriented as he has demonstrated in the complex implementations we have made in the European projects of the H2020.*

Jorge David Granda León
Worked together
Atlassian Solution Architect & Software Developer: *Dan is an exceptional Senior Software Engineer with a strong technical background, a talent for resolving ambiguities, a passion for mentoring colleagues, and an outstanding ability to earn trust. I recommend him without hesitation, and I am confident that he will be a valuable addition to any team.*

INTERESTS

AI	Gaming	Mentoring
Hiking	Skydiving	Travelling

WORK EXPERIENCE

Amazon   (October 01, 2019 - Present)
Software Development Engineer II

- SDE II in the Business Prime team (B2B) focusing on delivering benefits, benefit usage, collection, tracking and aggregation (**Java, Spring, Python, backend**) and Business Prime sign-up process and engagement rendering (**React, Next.js, Typescript, frontend**) following **AWS** (**Lambda, DynamoDB, EC2, CloudWatch, ECS, S3, IAM, Evidently, CloudWatch, SNS, SQS**) best practices.
- **AWS Solutions Architect Associate Certification** (currently undertaking).

amazon.com/businessprime

European Union, Horizon 2020   (June 01, 2014 - September 30, 2019)
Senior Software Engineer

- Senior Software Engineer working on the design and implementation of a large volume data collector and aggregator (using **Node.js, Express, Elasticsearch, Kibana, MongoDB, Apache Storm, Apache Kafka, Travis and Docker** among other technologies) for the European Union, Horizon 2020 (source code, 193 commits).
- Responsible for data visualization and implementing a customized dashboards portal for stakeholders using **Kibana, Node.js, Express, Angular, D3 and jQuery** (source code, 155 commits).
- Implemented the data format and processing for the distributed queue (**Kafka**) using **MongoDB, Elasticsearch, Mocha, Promises** (source code, 297 commits).
- Leading the design and implementation of an **Authentication and Authorization** module capable of managing users, permissions and proxy applications using **Node.js, Express, Redis, Mongoose, Passport and Http-proxy** (source code, 176 commits).

cordis.europa.eu/project/id/644187

Spanish Government, e-Madrid   (September 01, 2013 - May 31, 2014)
Software Engineer

- Software Engineer developing educational video games for Windows using **Unity3D** and **C#** at e-UCM. Additionally, developing livestream web-portals using Vaadin (Java).
- Responsible for the implementation of the Mokap in-house-editor (a multiplatform authoring tool for the creation of games and simulations) Android using: LibGdx, OpenGL, Android API (source code, 938 commits).
- Created Cytopathology Medical Training: a medical training simulator (79 commits) and authoring tool (61 commits) in collaboration with the department of Computer Science from **Massachusetts General Hospital (MGH)** and **Harvard Medical School (Boston)**.
- Implemented and tested five game-like simulations using the in-house Analytics environment using Unity3D (First Aid Game, Quiz Demo, Space-Shump, Silly Birds, Omega Mage).

e-ucm.es

Random Bot Games   (January 01, 2012 - August 31, 2013)
Software Engineer (Android)

- Software Engineer developing Android video games using LibGDX (Java), OpenGL and native Android API.
- Created (designed, developed, tested and published) five Android games (IOX, Angry Monsters, Bubble Balls, Mini Animals and multiplayer game Meme Ping Pong) at Random Bot Games Spanish start-up.

EDUCATION

PhD, Computer Science   (January 01, 2016 - July 31, 2019)
Complutense University of Madrid   Learning Analytics

PhD in Learning Analytics (2016 – 2019 not completed) - Published 10 research papers.
Research interests include the study of **educational videogames and their application in the field of medicine**, as well as the study of Learning Analytics techniques to improve their efficacy and their validation as an educational tool.

e-ucm.es/people/dan-cristian-roratu

MSc, Computer Science   (September 01, 2014 - December 31, 2015)
Complutense University of Madrid   Software Engineering

Master's in Computer Science at the Complutense University of Madrid (ranked 2nd in Spain, 144th in the global 2023 rating) is aimed at providing the knowledge required to be competitive in the Software Engineering market. Composed of 90 ECTS, it builds on top of the Bachelor's in Computer Science focusing on trending technologies (Event Driven Architectures, Systems Design, IOT and IA among others).

informatica.ucm.es/master-en-ingenieria-informatica

Bachelor, Computer Science   (September 01, 2010 - May 31, 2014)
Complutense University of Madrid

Bachelor's Degree in Computer Science composed of subjects focused on teaching Software Engineering best practices. See full leaflet with detailed subject information.

informatica.ucm.es

PUBLICATIONS

Validation of a Cyberbullying Serious Game Using Game Analytics   (March 31, 2020)
IEEE Transactions on Learning Technologies (Journal)
doi.org/10.1109/TLT.2018.2879354

From heterogeneous activiteis to unified analytics dashboards   (April 11, 2019)
IEEE Global Engineering Education Conference
doi.org/10.1109/EDUCON.2019.8725222

Using Game Technology to Automatize Neuropsychological Tests and Research in Active Aging   (October 31, 2018)
4th EAI International Conference on Smart Objects and Technologies for Social Good
dx.doi.org/10.1145/3284869.3284887

Multi-level Game Learning Analytics for Serious Games   (September 07, 2018)
10th International Conference on Virtual Worlds and Games for Serious Applications
doi.org/10.1109/VS-Games.2018.8493435

Learning analytics for location-based serious games   (April 20, 2018)
IEEE Global Engineering Education Conference
doi.org/10.1109/EDUCON.2018.8363365

Developing gamified interactive content for medical training in cytopathology   (June 07, 2017)
1st International Workshop on Gamification and Games for Learning
riull.ull.es/xmlui/handle/915/4777

Design and Development of a Serious Game for Medical Training in Cytopathology   (April 13, 2016)
ACM Digital Heath
doi.org/10.1145/2896338.2897731

Tools and Approaches for Simplifying Serious Games Development in Educational Settings   (April 11, 2016)
IEEE Global Engineering Education Conference
doi.org/10.1109/EDUCON.2016.7474707