# Javier Hernández Sánchez

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#### **Profile**

MSc in Telecommunications Engineering and 2+ years of professional experience as Software Engineer. Hands-on software and deeply involved in international client communications. Passionate about science and technology. My current motivations are cutting-edge technologies such as Blockchain and Artificial Intelligence. Open-Source advocate.

#### **Experience**



#### SOFTWARE ENGINEER, SENIOR ASSOCIATE | AVANADE

JUN 2023 - PRESENT

Software Engineer at Avanade, an IT consultancy company founded by Microsoft and Accenture. I have provided IT solutions to Zurich Insurance Group by digitalizing Investment Management (IM) and Reinsurance (Re) areas. Hands-on Software, DevOps, and Azure Cloud infrastructure.

#### **KEY ACHIEVEMENTS**

- I have designed an ETL pipeline to ingest tons of reinsurance data, introducing new technnologies and expertise in the team. The project had a huge time-constraint and thanks to my design the team could finished the application on time meeting all the technical requirements. I reduced the code complexity and optimized the ETL algorithm from O(n²) to O(1) thanks to matrix/vectorized operations, choosing the right data structures alongside distributed computing.
- Primary point of contact with business clients in international projects on North America and EMEA.
- Lowered Azure infrastructure annual cost by CHF 20k by improving algorithms and migrating several Azure resources.
- **Designed** two **data analysis applications**. One for Azure Log analytics using KQL and Power BI and another for analyzing global data purchase costs from the Investment Management area of Zurich.
- Carried on Azure DevOps tasks, doing recurrent feedback sessions with the clients, taking application requirements, and
  writing the User Stories for the team. Implemented Azure Pipelines and Releases for CD/CI for several applications stacks.
- Managed by myself an international and high-risk application because of its global company impact. Shipping several
  upgrades and given specific support to critical issues.
- Designed several Full Stack Applications with ASP .NET, Azure Durable Functions, Angular, React, SignalR and MSAL.
- Provided Network and Cloud Security proposals for all IM Zurich applications hosted in Azure.
- Veracode and Sonarqube code analysis.
- Improved and given support to over +10 different applications across Zurich Insurance.



#### **SOFTWARE ENGINEER, INTERN | AVANADE**

OCT 2022 - JUN 2023

Software Engineer in the Microsoft Ecosystem and Azure.



#### 5G RESEARCH INTERN | UNIVERSIDAD POLITÉCNICA DE MADRID

FEB 2021 - JUL 2021

Design of a 5G NR Simulation Tool for Qualcomm to evaluate the performance of different microcells in urban and industrial environments. Part of the Qualcomm Scholarship and Research Program on 5G Mobile Communications.

#### **Education**



#### MASTER OF SCIENCE, TELECOMMUNICATIONS ENGINEERING, UNIVERSIDAD POLITÉCNICA DE MADRID

SEP 2021 - JUL 2023

Field of specialization: Telematics

Distributed Systems, Networks and Cloud Infrastructure.



## BACHELOR OF ENGINEERING, TELECOMMUNICATION ENGINEERING, UNIVERSIDAD POLITÉCNICA DE MADRID SEP 2017 – JUL 2021

Field of specialization: Telecommunications Systems.

Radiowave and microwave electronics, antenna design, mobile communications, radars and radiodetermination systems.

### Languages



English | Full professional experience

Spanish | Native

#### **Certifications**



AZ-305: Designing Microsoft Azure Infrastructure Solutions | Microsoft In progress...



**≢**DGT Driving License | Dirección General de Tráfico Issued Feb 2019



First Certificate in English (B2) | Cambridge CAMERIDGE Issued Jun 2016

#### Courses



AI050T00: Develop Generative AI Solutions with Azure OpenAI Service | Microsoft Issued Dec 2023



GitHub Cloud Certification: Git, GitHub Actions, Copilot and Codespaces | GitHub Issued Nov 2023 | Show credential



Recurrent Neural Networks and Transformers | Hugging Face Issued Jul 2023



Docker, Kubernetes, and Infrastructure as Code | freeCodeCamp Issued Ago 2022



Python Neural Networks with TensorFlow 2.0 | freeCodeCamp Issued Jul 2022



Strategic and Technical Vision of 5G Mobile Communications | Qualcomm Issued Jun 2021



Machine Learning: Python and R | Udemy Issued Sep 2020 | Show credential



Blockchain, Solidity and Web3 Full Stack Development | freeCodeCamp Issued Jul 2020



Data Science with Python | Universidad Politécnica de Madrid Issued Jun 2020

## **Skills and Technologies**

Web: NodeJS, ReactJS, AngularJS, TypeScript, ESLint, Vite, esbuild, ExpressJS, HTML5, CSS3, TailwindCSS, Bootstrap, Figma, ChartJS. Data and AI: Python, Pandas, TensorFlow, Numpy, Matplotlib, Sklearn, MongoDB, GraphDB, VectorDB, Cassandra.

Infrastructure: Apache Spark and Kafka, Docker, Docker Compose, Kubernetes, Ansible, Zookeper, NiFi, Scala, CEPH, HDFS, Wireshark. Azure: Azure Durable Functions, Data Factory, Key Vault, Blob Storage, Azure Service Bus, Azurite, KQL, Azure Log Analytics, Application Insights, SignalR, MSAL, Azure SQL Server, Logic Apps.

Azure Networks: Azure VNET, Subnets, Route Tables, Network Security Groups, API Gateways, CORS, Firewalls, Custom Gateway, API

Microsoft: C#, ASP .NET, Power BI, Power Apps, SharePoint, Power Platform, Power Automate, Outlook, Teams, OneDrive. Dapper, Entity Framework, Excel, Closed XML, SOAP, and REST APIs.

DevOps: GitHub, Azure DevOps, Azure Pipelines and Releases for CI/CD, SonarQube, Veracode, GitHub Actions, Agile, Git.

Blockchain: Solidity, Truffle, Ganache, Geth, Blockchain Architecture, Drizzle, Web3, EthersJS.

Other: Java, PHP, Matlab, C, R, Assembly, LISP, VHDL.