

Sergio Rodríguez Vázquez

Software Engineer

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SUMMARY

Experienced Software Engineer with a strong background in developing and deploying computer vision algorithms, training deep learning models, and implementing efficient communication systems. Proven ability to develop projects and improve system performance using a variety of technologies and programming languages.

EDUCATION

Universidad de Cádiz

Bachelor's Degree in Computer Science

Cádiz, Spain

September 2017 – July 2024

Uniwersytet Wrocławski

Erasmus Exchange Program in Computer Science

Wrocław, Poland

February 2022 – July 2022

EXPERIENCE

Software Engineer

GTD Defense & Security

September 2022 – Present

El Puerto de Santa María, Spain

- Developed and deployed an advanced computer vision algorithm on a Jetson Xavier AGX board, achieving 70% accuracy in object classification.
- Trained deep learning models and created datasets, achieving a mAP of 75%.
- Utilized Python with libraries such as Darknet, Tensorflow, Numpy, Keras, and Pandas.
- Led the transition of internal communications to DDS and Websockets, improving the speed of the system's communications by 30%.
- Implemented a video pipeline with image enhancement using Gstreamer in C++.
- Operated within a continuous integration and deployment pipeline.
- Collaborated in teams managed by Agile Methodologies, Scrum
- Performed module testing using Pytest.

Trainee Software Engineer

Universidad de Cádiz

July 2022 – September 2022

Cádiz, Spain

- Provided technical assistance to users to resolve issues when accessing the university system.
- Documented common issues and their solutions to create an accessible knowledge base for the support team.

PROJECTS

PreventAI | *Python, Javascript, React, MariaDB, ExpressJS*

January 2022 – Present

- Developed a full-stack web application for occupational risk prevention forms using ExpressJS to serve a REST API with React as the frontend.
- Implemented artificial intelligence to detect poses in report images, enhancing accuracy and efficiency of the evaluation.
- Deployed the application on AWS, ensuring scalability and availability.
- Used version control with GitHub to manage the source code and collaboration on the project.
- Implemented extensive tests on the backend API to ensure system functionality and stability.

TECHNICAL SKILLS

Languages: Python, C++, SQL, JavaScript, Java, HTML/CSS

Frameworks: Darknet, React, Node.js, ExpressJS, Material-UI

Developer Tools: Linux, Git, Subversion, AWS, Jenkins, SonarQube, VS Code

Libraries: Tensorflow, NumPy, Pytest, Matplotlib

LANGUAGES

Spanish: Native

English: First Certificate Level (B2)