

# Diogo Almeida

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## ABOUT ME

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I am an ambitious and passionate software engineer proficient in various technologies who relishes solving problems by crafting efficient, reliable, and maintainable solutions. Always eager to learn and grow, I am committed to staying current with the best practices and latest advancements in the ever-evolving world of technology.

## EXPERIENCE

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### Critical Techworks | BMW Group

Sep 2023 – present  
Porto, Portugal

#### Software Engineer

- Working as a full stack software engineer on Cloud Data Hub: BMW Group's data lake platform.
  - Developed an interface for database fine-grained access control, a feature optimizing AWS storage usage and projected to save over \$1M annually in costs.
  - Enhanced the platform's data ingest feature by building new user interfaces and data pipeline infrastructure, improving user experience.
  - Built a web application to automate script execution for first-level support teams, reducing resolution time for common user issues.
- Technologies: React, Typescript, GraphQL, Node.js, Python, AWS, Terraform.

### Formula Student FEUP

#### Driverless Department Member

Nov 2022 – Aug 2023  
Porto, Portugal

- Designed and implemented the perception module of the 2023 autonomous vehicle, contributing to the team's success in winning multiple awards at Formula Student UK 2023.
- Technologies: Python, PyTorch, YOLO, ROS 2.

#### Electronics & Software Department Member

Jul 2021 – Oct 2022  
Porto, Portugal

- Conducted research on CAN bus and embedded systems for the 2022 concept vehicle, contributing to the team's success in winning multiple awards at Formula Student UK 2022.
- Technologies: Embedded C.

## EDUCATION

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### Master's Degree in Informatics and Computing Engineering

2021 – 2023  
Porto, Portugal

#### Faculty of Engineering of the University of Porto

- Final grade of 18/20 values.

### Erasmus+ Mobility Program - Master's Degree in Artificial Intelligence

Sep 2022 – Feb 2023  
Bologna, Italy

#### University of Bologna

- Final grade of 18/20 values.

### Bachelor's Degree in Informatics and Computing Engineering

2018 – 2021  
Porto, Portugal

#### Faculty of Engineering of the University of Porto

- Final grade of 17/20 values.

## PUBLICATIONS

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### SIT6: Indirect touch-based object manipulation for DeskVR

- D. Almeida, D. Mendes, and R. Rodrigues, "SIT6: Indirect touch-based object manipulation for DeskVR," Computers & Graphics, vol. 117, pp. 51–60, 2023, doi: <https://doi.org/10.1016/j.cag.2023.10.013>.

## PROJECTS

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### News Web App

Database and Web Applications Laboratory Course

- Implementation of a news forum (similar to Reddit) for gaming.
- Technologies: HTML, CSS, Bootstrap, Laravel, JavaScript.

### Compiler for Java-- (subset of Java)

Compilers Course

- Implementation of a programming language parser, along with lexical and semantic analysis.
- Technologies: Java, JavaCC, Jasmin.

### Distributed Backup Service

Distributed Systems Course

- Implementation of a peer-to-peer file storage service.
- Technologies: Java, Java RMI.

## SKILLS

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### Programming Languages

- Python, TypeScript, JavaScript, Go, Java, C#, C++, C

### Databases

- MySQL, PostgreSQL, MongoDB

### Technologies

- React, Node.js, GraphQL, RabbitMQ

### Tools and Services

- Git, Docker, AWS, Terraform

## LANGUAGES

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**Portuguese** — Native | **English** — Full Professional Proficiency - C2