

# PEDRO MÜLLER

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## EXPERIENCE

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### Ostrom

*Software Engineer*

Berlin, Germany

Feb 2023 – Present

- Architected and developed a scalable energy management platform serving thousands of clients with real-time monitoring and control systems for distributed energy resources
- Designed and implemented advanced EV charging algorithms optimizing energy consumption patterns, reducing operational costs through intelligent load management and time-of-use optimization
- Built virtual power plant system enabling energy market participation, generating revenue through optimized vehicle charging and energy trading strategies

### pragmatic industries GmbH

*Software Engineer*

Germany

Nov 2021 – Feb 2023

- Led backend feature development, translating user requirements into technical specifications and delivering scalable solutions
- Implemented comprehensive unit testing and automated CI/CD pipelines, improving code quality and reducing deployment time
- Managed client relationships and created demo environments, facilitating solution demonstrations and stakeholder communication

### Siemens Energy

*Research Assistant*

Munich, Germany

Oct 2020 – Sep 2021

- Conducted techno-economic analysis of hydrogen transport infrastructure using linear optimization models and mathematical programming
- Researched and analyzed regional hydrogen demand projections, contributing to strategic planning for future energy infrastructure
- Validated German gas network models and completed Master's thesis on hydrogen transport infrastructure optimization

## EDUCATION

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### Technical University Munich (TUM)

*Master of Science in Electrical Engineering and Computer Science*

Munich, Germany

2018 – 2021

### University of Porto (FEUP)

*Bachelor of Science in Electrical Engineering and Computer Science*

Porto, Portugal

2015 – 2018

## PRESENTATIONS

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### Sword AI Summit: Building Real AI Workflows for Software Engineers

Nov 15, 2025

## TECHNICAL SKILLS

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**Languages & Frameworks:** JavaScript, TypeScript, Node.js, Nest.js, Python, SQL, NoSQL

**DevOps & Cloud:** AWS (Certified Cloud Architect), CI/CD, GitHub Actions, Terraform, Docker

**Tools:** Sentry, Jira, Git, Jest

**Methodologies:** Microservices, Agile, TDD, System Design

## LANGUAGES

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German, Portuguese, English (Native/Bilingual); Spanish, French (Limited Working)