

# MOHAMMED HALBOUP

Saarbrücken, Germany

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## PROFILE

Full-Stack Engineer (Werkstudent) at PCC and Computer Science student at Saarland University, focused on building reliable software systems and shipping production-ready features. Interested in backend automation, scalable web products, and practical AI applications.

## EDUCATION

<b>B.Sc. Computer Science</b> Universität des Saarlandes, Saarbrücken, Germany	2024 – Present
<b>Cambridge A-Levels (CAIE)</b> Computer Science (A*), Mathematics (A*), Physics (A*)	2022 – 2023

## EXPERIENCE

<b>PersonalClientCare (PCC)</b> <i>Full-Stack Engineer (Werkstudent)</i>	Sep. 2025 – Present Germany / Remote
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- Developed user-facing UI features and backend automation for application.
- Designed and implemented backend APIs and data workflows supporting intelligent automation.
- Delivered scalable, production-ready improvements in an agile engineering environment.

<b>Universität des Saarlandes</b> <i>Software Engineering Lab (Internship / Project-Based Course)</i>	Summer 2025 (7 weeks) Saarbrücken, Germany
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- Built **SaarValley**, a full simulation platform modeling farming workflows end-to-end (environment, animals, machines, harvesting, incidents).
- Owned the full software lifecycle: requirements, system design, implementation, testing, and iterative refinement.
- Collaborated in a team setting with structured development practices and validation of simulation behavior.

## PROJECTS

### DreamTransport — GitHub

- Public transport optimization system for Neumarkt i.d. OPf. to improve bus routes and stops using passenger data, punctuality analysis, and mathematical optimization algorithms.

### MiniCompiler — GitHub

- Developed a mini compiler using OCaml.

### Finance Website — GitHub

- Built a full-stack finance website with Flask, HTML, CSS, and JavaScript.

### Klebl AI (Hackathon Winner) — GitHub

- Used YOLOv11 and Gemini API to analyze construction blueprints, reducing analysis time by 90%.

### UdS\_OP (Universal Desktop Assistant) — GitHub

- AI assistant capable of code execution, file operations, browsing, and searches.

### Voice Oasis — GitHub

- Voice enhancement platform for AI agents using SpeechBrain, Azure Cognitive, and Flask.

### SwissInsight — GitHub

- Natural language query system for Swiss startup data using SPARQL and semantic search.

## TECH SKILLS

Python, C, SQL, Go, Dart, HTML, CSS, JavaScript, OCaml, Scala, Flask, FastAPI, Flutter, RISC-V, Chisel, Git, GitHub, VS Code, Google Workspace, Microsoft Office, Adobe Creative Suite

## LANGUAGES

- **Arabic:** Native
- **English:** C1 Proficiency
- **German:** B1 Proficiency