

MOHAMMED HALBOUP

Saarbrücken, Germany

mohammedhalboub23@gmail.com | +49 176 74522561 | github.com/MohdEssam77 | Portfolio

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

EXPERIENCE

PersonalClientCare (PCC) Sep. 2025 – Present
Full-Stack Engineer (Werkstudent) Germany / Remote

- 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.

Universität des Saarlandes Summer 2025 (7 weeks)
Software Engineering Lab (Internship / Project-Based Course) Saarbrücken, Germany

- 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