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Software Engineer

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EDUCATION

Computer Science | 42 Berlin

04.2024 – Current

- Intensive project-based / system programming / algorithms / C, C++ / Networking / OOP.

Construction & Real Estate Management M.Eng. M.Sc.

09.2022 – 09.2024

HTW Berlin & Metropolia UAS, Helsinki

- Project Management & Monitoring / LCA/ LCC / BIM / Feasibility Study / Tendering

PROJECTS AND EXPERIENCES

- **Minishell** – Developed a UNIX shell with command execution, child processes, pipes, and built-ins, signals and parsing in C (Group project).
- **Push_swap** – Designed and implemented an efficient sorting algorithm in C.
- **Cub3D** – Creating a 3D game environment with Ray-Casting technics and X11 library in C (Group project).
- **Philosophers** – Solving the famous “Dining philosophers’ problem” with multi-threading in C.
- **NetPractice** – Basics of networking and subtending with TCP/IP (IPv4).
- **Inception** – A secure multi-service WordPress infrastructure using Docker Compose, featuring TLS, NGINX, MariaDB, and automated setup with WP-CLI on Debian.
- **Webserv** – A fully functional HTTP web server in C++ from scratch, supporting CGI, static file serving, chunked transfer, and configuration parsing.
- **Soft Skills** – Peer to peer learning, self-learning, adaptability, problem-solving, teamwork, and independence.

TECHNICAL SKILLS

- **Programming Languages:** C, C++, Bash, Shell Scripting
- **Development Tools:** Git, GitHub, Makefiles, Debuggers (GDB, LLDB), Valgrind
- **Core Concepts:** Algorithms, Data Structures, Code Optimization, Memory Management
- **Systems & Networking:** Linux (Ubuntu, macOS), System Calls, TCP/IP (IPv4), Network Debugging, Docker
- **Software Engineering:** Modular Programming, Version Control, Code Review, Team Collaboration
- **Problem-Solving:** Analytical Thinking, Debugging Complex Codebases, Self-Learning, Peer Mentorship

Languages English / Persian