Mahmood Seoud

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Professional Summary

Enthusiastic Computer Science Student

Profile

Master's student in Computer Science with practical experience in embedded systems, AI-driven applications, and cloud-based solutions. Passionate about space technology and robotics, with a focus on building scalable, real-world systems using Linux, Yocto, and modern development stacks.

Education

Master's in Computer Science — *IT University of Copenhagen*

Master's degree program 2nd semester — *July 2024 - June 2026*

Gaining hands-on experience in digital fabrication and rapid prototyping through courses.

Bachelor's in Computer Science — *University of Copenhagen*

Bachelor's degree program — *July 2021 - June 2024*

Strong emphasis on logical thinking, abstract mathematics, and problem-solving.
Thesis: Mesh Grid Networks

Professional Experience

PeopleNet A/S — *August 2022 - Present*

Software Developer — *Copenhagen, Denmark*

- Designed and deployed a custom AI-powered chatbot for SharePoint Online using Azure Cognitive Services and later optimized costs by integrating OpenAI Assistants API, saving 4,000-5,000 DKK per month.
- Built a React & TypeScript-based web part that streamlined project site setup, reducing configuration time and improving operational efficiency.

Technical Projects

DISCOSAT / DISCO Project — *February 2023 – Present*

Embedded Systems Developer (Volunteer) — *Copenhagen, Denmark*

- Developed a C-based camera controller for CubeSat optical sensors, implementing System V IPC mechanisms (shared memory and message queues) to capture and process raw BayerRG image data from visible and IR cameras, with CSP parameter integration for remote Earth-based control and real-time telemetry feedback.
- Built and maintained a Yocto-based Linux OS for CubeSats, optimizing boot time and reducing system overhead for space-ready deployment.

Publications

Concurrent Processes Architectures and Embedded Systems — *August 2024*

COPA2024 Virtual Conference — *San Diego, California, USA*

- Seoud, M., & Marchant, D. "Building Towards a Distributed, Dynamic Solution to the Santa Problem, *Proceedings of the 2024 Concurrent Processes Architectures and Embedded Systems Hybrid Virtual Conference*, vol. 20, pp. 59-73.

Technical skills

Programming Languages:	C, C++, Python, TypeScript, JavaScript, Java, C#, F#
Frameworks/Tools:	React, TensorFlow, OpenCV, Git, Azure, SQL
Systems:	Linux, Yocto, Azure Functions, Blob Storage