

Hadi Houssainy



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🔗 github.com/0had0

🔗 scholar.google.com/citations?user=0jMX9akAAAAJ

SKILLS

- Full-Stack JavaScript
- C
- C++
- Matlab
- Python
- Tensorflow
- Pytorch
- Linux
- TCP/IP
- Computer Networks
- Docker
- DASH HLS
- Digital Signal Processing
- Automation
- Multimedia Programing
- Deep Learning
- Streaming Media
- Digital Control
- Optimization
- Git
- Telecommunications

HOBBIES

- Video Games
- Sitcoms
- Sports

RESUME

Background in CCE, Software Engineering, Multimedia Networking. I bring expertise in crafting software solutions and a passion for applying AI to diverse challenges. Highly proficient in network protocols and software scalability, I approach problems systematically, fostering collaboration and clear communication within teams.

EXPERIENCES

Intern R&D engineer @ Interdigital | Rennes, France

Apr - Sep 2024

Developed a comprehensive streaming chain using DASH. Gained expertise in transport protocols, C/C++, bash scripting, and Linux (SLURM), applied ML, DL and RL algorithms to optimize the bitrate ladders minimizing energy consumption and maintaining acceptable QoE.

Research Collaboration @ Freelance | Remote

Oct 2022 - Sep 2023

Research experience in intrusion detection & optical network fault detection. Implemented ML/DL algorithms & explored privacy-preserving IDS with federated/split learning. Skilled in Python & Docker, published an article.

Software engineer @ Schedex | Remote

Sep 2020 - Current

Full-stack developer with experience in React, React Native, and NestJS. Developed front-end, back-end, and mobile applications. Implemented advanced algorithms for different functionalities.

Intern Telecom engineer @ Ogero | Beirut, Lebanon

Aug - Oct 2022

Worked on telecom infrastructure & network designs (FTTx, cabling, buildings). Gain expertise in ADSL, VDSL, HDSL & fiber optic tech (FTTH, FTTC)

EDUCATION

Engineering Diploma | Telecommunications Engineering

Lebanese University, Beirut, Lebanon

Sept 2017 - Oct 2024

Digital Signal Processing - Telecommunications - Computer Networks - SIP - Operational Research - Digital Control - Microprocessors - Optoelectronics - Database - Machine Learning - Fixed Telephony

Master 2 | Multimedia: Networking, Deep Learning and Security

University Paris-Saclay & Telecom Sud-Paris, Paris, France

Sept 2023 - Oct 2024

Optimization - CDN - AV Transport - Compression - Security - Deep Learning - Reinforcement Learning

CERTIFICATION

- Deep Learning Specialization by DeepLearning.ai
- Google Data Analytics Certificate
- CCNA: Switching, Routing, and Wireless Essentials
- CCNA: Introduction to Networks

PROJECTS

360 video viewport adaptation using VVC subpictures

Reduced bitrate in 4K 360° video streaming (VVC, DASH) via subpicture adaptation. Debugged software & automated testing.

Video Fingerprinting Generator & Matcher

Generation of fingerprints (Python, opencv) using block gradients. Stored fingerprints (SQLite) & utilized efficient search algorithms for short-sequence matching.

Packet Tracer

C# GUI, with libpcap backend, this project aim was to implement concurrency in software.

HMDB: Hadi Movies Database

Front-end web-app build on top of the IMDB API, handled authentication (React, JavaScript)

LANGUAGES

Arabic (Native)

English (C1)

French (B2)

REFERENCES

- OMRAN AYOUB (SUPSI)
- Jean Le Feuvre (Telecom Paris)