Jessim SKIBA

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Software Engineering student seeking a 6-month internship | Systems Programming & Scalable Solutions

TECHNICAL SKILLS

Languages: C/C++ (advanced, 3+ years), Python (intermediate), JavaScript/TypeScript, SQL, Bash
Core CS: Data Structures, Algorithms, Time/Space Complexity Analysis, Concurrent Programming, Network Protocols
Systems: Linux (Ubuntu, Arch), Docker, POSIX threads, TCP/IP, Memory Management, Shell Programming
Tools & Practices: Git, CI/CD, Unit Testing, Nginx, REST APIs, Agile Development
Web Technologies: Node.js, Fastify, SQLite, HTML5/CSS3, Tailwind, Real-time WebSockets

EDUCATION

42 Paris — Software Engineering Program
Master RNCP Level 7 in Information Systems and Networks   Nov 2022 – Present
Core Focus: Systems Programming, Algorithm Design, Network Architecture, Low-level Programming
Key Coursework: Operating Systems, Computer Networks, Database Systems, Software Architecture

TECHNICAL PROJECTS

ft_transcendence — Full-Stack Real-Time Gaming Platform [GitHub]
- Developed multiplayer gaming platform featuring Pong and Snake games with real-time synchronization
- Implemented WebSocket-based game state management ensuring <100ms latency for smooth gameplay
- Built scalable architecture using TypeScript/Node.js backend with SQLite for persistent data storage
- Designed responsive frontend with live game rooms, chat system, and player matchmaking
- Deployed containerized application using Docker Compose for consistent development environments

ft_IRC — RFC-Compliant IRC Server Implementation [GitHub]
- Developed multi-client IRC server in C++ supporting 50+ simultaneous connections
- Implemented core IRC commands (JOIN, PRIVMSG, NICK, etc.) following RFC 1459 specifications
- Built robust message routing system with channel management and user authentication
- Achieved zero memory leaks through careful resource management (Valgrind verified)

Cub3D — 3D Graphics Engine (Raycasting) [GitHub]
- Built 3D graphics engine in C using raycasting algorithm inspired by Wolfenstein 3D
- Implemented texture mapping, sprite rendering, and collision detection from scratch
- Optimized rendering loop achieving 60+ FPS through efficient mathematical calculations
- Created custom map parser supporting various game configurations

Philosophers — Dining Philosophers Problem [GitHub]
- Solved classic synchronization problem using POSIX threads and mutex locks in C
- Prevented deadlocks and race conditions through careful resource ordering
- Implemented monitoring system to detect philosopher starvation within specified timeframes

Inception — System Administration with Docker [GitHub]
- Orchestrated multi-container infrastructure using Docker and Docker Compose
- Configured NGINX, WordPress, and MariaDB services with custom networking
- Implemented SSL/TLS encryption and automated container health monitoring

PROFESSIONAL EXPERIENCE

Freelance STEM Tutor — Mathematics and Computer Science   Feb 2025 – Jun 2025
- Tutored 15+ high school students in mathematics, physics, and introductory Python programming
- Developed personalized learning plans focusing on problem-solving and analytical thinking
- Helped students improve their understanding of algorithmic concepts and mathematical foundations

AXA GIE — IT Support Technician   Dec 2024 – Feb 2025
- Deployed hardware infrastructure for new AXA headquarters including server racks and network equipment
- Provided technical support to C-level executives during office transition period
- Configured workstations and ensured smooth IT operations for 20+ VIP users
- Managed hardware inventory and coordinated with vendors for equipment procurement

ACHIEVEMENTS & INTERESTS

Hackathon Winner — Hacking Health Normandie (April 2023): Coup de Cœur Prize for *Endotest* diagnostic tool
Problem Solving: Active on algorithmic challenge platforms, continuously improving problem-solving skills
Languages: French (native), English (fluent)