Rémi DEL MEDICO

+33 6 21 30-60-65 | Grenoble, France | remi.del-medico@etu.univ-grenoble-alpes.fr
RDel-Medico | Rémi Del Medico | Portfolio

Skills

Java, distributed algorithms, Bash scripting, Linux, Network, Python, C, Scrum, Data Structure and Algorithm, OCaml, Git, Object Oriented Programming

Experience

Network Architect, Savoie Departmental Council *April 2024 - August 2024*
Chambéry, France

- Conducted performance evaluations over the IT system of 37 middle schools.
- Architected a new caching server infrastructure using Proxmox for an IT stock of over 6,000 machines.
- Automated deployment processes for 37 new caching servers that utilize the new architecture, reducing deployment time by 97%.
- Conceived centralized management solutions for enhanced monitoring and maintenance of caching servers using Ansible.

Laboratory Intern, VERIMAG *June 2023 - July 2023*
Grenoble, France

- Designed and implemented self-stabilizing distributed algorithms in OCaml.
- Composed self-stabilizing distributed algorithms using 4 composition techniques.
- Analyzed performance of the 4 composition techniques, identifying the most efficient method.

IT Intern, Savoie Departmental Council *April 2022 - July 2022*
Chambéry, France

- Automated migration of over 200 packages between two versions of WAPT.
- Created and optimized bash scripts to utomate the migration.
- Designed packages in Python to automate software deployement.

Projects

Doom Game Engine in Java, Github repository

- Independently developed a custom game engine in Java, inspired by the original Doom.
- Engineered 2D and 3D rendering techniques to recreate retro 3D visuals within a Java environment.
- Integrated Binary Space Partitioning (BSP) for optimized scene management and spatial partitioning.
- Implemented basic player movement from scratch within a 3D-simulated space from a 2D map.

Blockudoku AI, Github repository

- Created a Java-based simulation of the popular Blockudoku game, enhanced with an AI-driven player that outperformed average human players in test simulations.
- Engineered a heuristic-based AI system that autonomously plays the game by evaluating moves using custom scoring rules.
- Defined algorithmic scoring criteria that assess piece connectivity, adjacency, and alignment with rows, columns, and 3x3 grids.
- Built core game mechanics to closely replicate the original Blockudoku gameplay experience using the Processing framework.

Sea of crabs, Github repository

- Collaborated as part of a 7-member development team over 3 weeks as a developer.
- Developed the 2D isometric game engine in Java from scratch.
- Utilized Perlin noise for procedural map generation, ensuring varied and engaging gameplay environments.
- Built an automata engine for entity behavior management.
- Developed asymmetric local multiplayer.
- Achieved the highest grade among all projects in our cohort.

Education

Université Grenoble Alpes, Polytech Grenoble *April 2022 - Present*
Master's degree in Computer Science - First Year Valedictorian, GPA - 3.7 Grenoble, France

Université Grenoble Alpes, Magistère d'informatique *September 2023 - Present*
Master's degree in Computer Science (Applied to research), GPA - 4 Grenoble, France

Université Grenoble Alpes, IUT2 Grenoble *July 2022*
Bachelor in Computer Science Grenoble, France