Alexandre Manai

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LINKS

Portfolio:// **alexandre.manai.dev**
GitLab:// **IOkkOI**
LinkedIn:// **alexandremanai**

COURSEWORK

UNDERGRADUATE

Linear Algebra
Algorithm and Datastructures
Discrete Mathematics
Digital Circuits
Parallel Prog.
Algorithms and Probability
Analysis I / II
Systems Prog. and Computer Arch.
Introduction to Cognitive Science
Leadership I
Formal Methods and Functional Prog.
Data Modelling and Databases
Computer Networks
Probability and Statistics
Visual Computing
Computer Systems
Numerical Methods for CSE
Arch. to VLSI Circuits and FPGAs

SKILLS

PROGRAMMING

Fluent:
C • C++ • Java • Haskell
SQL • Python • HTML • CSS
Familiar:
x86 Assembly • Bash • Javascript
LaTeX • Processing.js • WebGL
OS:
Linux Ubuntu• Microsoft Windows
IDE:
Atom • VSCode • Eclipse • Vim
Software:
Google Cloud • Python Flask
HA Proxy • Jupyter Notebook
PostGreSQL • Adobe Creative Cloud
MATLAB • Cinema 4D

LANGUAGES

Native:
French • German
Proficient:
English(C2) • Spanish(B1)
Learning:
Vietnamese • Korean

EDUCATION

ETH ZÜRICH
BACHELOR OF SCIENCE IN COMPUTER SCIENCE
May 2016 - now | Zürich, Switzerland
Department of Computer Science

LYCÉE INTERNATIONAL DE SAINT-GERMAIN-EN-LAYE
INTERNATIONAL OPTION BACCALAUREATE IN FRENCH AND GERMAN
Grad. 2016 | Paris, France
Computer Science Minor

EXPERIENCE

4D | SOFTWARE ENGINEERING INTERN
June 2013 – Sep 2013 | Paris, France
- FacilitatePro which uses 4D integrated web servers is used daily by NASA, BioRad, Sweetwater and more
- Interfaced 4D Servers with Databases such as Oracle and Microsoft SQL
- Learned about SQL Databases (PostgreSQL) and coded in SQL

PHLOÈME | SOFTWARE ENGINEERING INTERN
June 2012 – Sep 2012 | Paris, France
- Introduced to professional work environment
- Acquired knowledge on HTML, CSS and Javascript
- Designed and coded my first front-end website

PROJECTS

see insights on my portfolio page

CONNECT4 AI 2 | PERSONAL (ONGOING)
Aug 2019 - now | Zürich, Switzerland
Understanding and Implementing **Deep Reinforcement Learning**. Attempt to create a better AI than in the Connect4 AI Project (see below).

PORTFOLIO WEBSITE | PERSONAL
Mai 2019 - now | Zürich, Switzerland
Created a Virtual Machine on **Google Cloud**, installed the web framework **Python Flask**, deployed my code on it, set up a **HAProxy**, integrated **LetsEncrypt** to create a valid SSL/TLS Certificate and managed code on **GitLab**

CONNECT4 AI | PERSONAL
Mar 2019 - Jun 2019 | Paris, France
Implementation in Python3 of the Connect4 Game with the possibility to play against a friend, random AI or a **Minimax** AI optimized with **Alpha-beta pruning**

GUESSING NUMBER | PERSONAL
Jan 2019 - Feb 2019 | Zürich, Switzerland
Implementing a **Genetic Algorithm** to find your secret number

METEOROLOGICAL STATION | TEAM LEADER
Jan 2016 – Sep 2016 | Paris, France
Led the development of a **meteorological station** that registers and analyzes local climate data using an **Arduino Uno**, multiple sensors, Parallax, Excel, a GUI , C++ and mathematical models to give **accurate predictions**.