Christ Chadrak MVOUNGOU

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Education

École Polytechnique of Tours, France *Sept. 2024 - July 2027*
Currently pursuing Computer Engineering
Relevant courses: Software Engineering, Object-Oriented Programming, Advanced Operating Systems, Analyze and Complement Algebra, Data Structures and Algorithms, Management of Entreprises

Skills

Programming Skills: Python, JavaScript/TypeScript, C/C++, Java, SQL

Technologies: Pandas, Numpy, Scikit-learn, Matplotlib, Seaborn, Scipy, HTML, CSS, Tailwindcss, React.js, Node.js, Express.js, MongoDB, MySQL, Firebase, RESTful APIs, Git & GitHub

Professional Experience

Teaching Assistant - Programming and Robotics *October 15, 2024 - March 14, 2025*
Polytech Tours, France
- Assisted middle school students (3rd-year level) in learning programming and robotics using Python and Scratch.
- Designed interactive lessons to introduce programming fundamentals in a fun and engaging way.
- Taught foundational programming concepts through interactive robotics projects.
- Simplified complex programming concepts to make them accessible and engaging for students.
- Guided students through practical exercises, fostering hands-on learning and problem-solving skills in Python and Scratch.
- Evaluated student progress and provided individualized support to enhance their understanding of robotics and programming.

Software Engineering Intern - DEMO *April 2024 - July 2024*
Ecole SupMTI
- Collaborated on the development of the *PFE Manager* project (React.js, Firebase) as part of a team of 2.
- Built a full-stack platform for managing graduation projects for students, professors, and administrators.
- Integrated Firebase for real-time database management and authentication services.
- Improved productivity by **60%** by streamlining project assignment and monitoring processes.
- Enhanced tracking efficiency, resulting in a **25%** reduction in project follow-up time for administrators.
Technologies Used: JavaScript, React.Js, API Context, Tailwindcss, Firebase, Firebase Firestore.

Personal Projects

Ping Pong Game (Python - Pygame - Q_learning Algorithm) - GITHUB LINK
- Developed a simple Ping Pong game using Python and Pygame, featuring two-player and single-player modes.
- Implemented a Q-learning algorithm to create an autonomous gameplay experience, allowing the computer to learn and adapt to player strategies.
- Created an intuitive user interface with responsive controls for smooth gameplay.
- After **500 training games**, the AI achieved a **200% increase in average reward**, indicating improved performance and adaptation.

Clustering Project: K-Means Algorithm (Python, NumPy) - GITHUB LINK
- Developed a clustering algorithm based on the K-Means method, allowing the grouping of points based on their coordinates in a two-dimensional space.
- Data Collection: Enables the user to input coordinates for a variable number of points.
- Data Normalization: Applies Z-score normalization to the coordinates to facilitate grouping.
- Group Visualization: Displays groups of points associated with each centroid, along with calculating intra-class inertia to assess the quality of the groupings.

Certifications

Data analysis with Python – **Coursera & IBM** CERTIFICATE *April 2024*
Gained expertise in machine learning concepts and applications using Python with **98%** completion.

Python Intermediate, CERTIFICATE and **Python Data Structures** CERTIFICATE - Sololearn *April 2023*
Completed an intermediate-level course covering advanced Python programming techniques.