Taha Khamessi

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Education

The Higher Institute of Information Technologies and Communication - ISTIC *Sept 2022 – May 2024*
BS in Computer Science

- GPA: 3.7/4.0
- **Coursework:** Software Engineering and Information Systems

Preparatory Institute for Engineering Studies of Nabeul - IPEIN *Sept 2019 – April 2022*
Undergraduate Degree

- **Coursework:** Mathematics and Physics

Experience

Software Developer Intern - AI & Mobile Development(End of Study Internship) *Tunis, Tunisia*
Maghreb Code Multimedia *Feb. 2024 - May. 2024*

- Developed a mobile app with high-speed recognition, allowing users to upload or capture car images, with classification and price prediction completed in under 2 seconds.
- Implemented a robust AI model that achieved a 70% test accuracy for car model classification, leveraging the DVM-CAR 2.0 dataset of 1.45 million vehicle images.
- Balanced the model by augmenting underrepresented classes, enhancing accuracy across 899 car models.
- Reduced data processing demands by implementing data chunking and transfer learning, optimizing model training time by 40%.

Network Security Intern *Tunis, Tunisia*
Agence Tunisienne de la Formation Professionnelle *Jul. 2023 - Aug. 2023*

- Configured and optimized Fortinet firewalls to enhance network security protocols, supporting comprehensive systems administration tasks.

Projects

CosmicVue (NASA Space Apps Challenge) *Github Repo*

- Developed an interactive web application for solar system simulation, selected as a Global Finalist in the 2024 NASA International Space Apps Challenge (top 40 out of 10,000+ teams). Integrated Near-Earth Objects tracking with innovative celestial body visualization.
- Tools Used: React, Three.js, Python, Netlify

CarVision (End of Study Project) *Github Repo*

- Developed a deep neural network using TensorFlow to recognize and classify cars from images and predict their prices, trained on the ”DVM-CAR 2.0” dataset. Created a mobile app with Flutter Node.js and MongoDB, integrating the model for real-time use.
- Tools Used: Flutter, Node.js/Express.js, MongoDB, TensorFlow/TensorFlow Lite, Keras, Google Colab Notebook

Collaborative Code Editor *Github Repo*

- Developed a full-stack, real-time collaborative code editor allowing users to create rooms for coding sessions and collaborate with instant synchronization across participants. Implemented a responsive front end for an engaging user experience and a robust back end for efficient server communication. Integrated real-time updates, user authentication with Google account sign-in, and an in-room messaging feature for seamless communication during coding sessions.
- Tools Used: React, Firebase Auth, Firestore DB, Firebase Hosting

Skills & Certifications

- **Programming Languages:** JavaScript, Python (Advanced), Java
- **AI/ML Technologies:** TensorFlow, Keras, OpenCV, Transfer Learning, Computer Vision
- **Web & Mobile :** React.js, Node.js, Firebase, MongoDB, HTML/CSS, THREE.js, RESTful APIs, Spring Boot, Flutter, MySQL, Angular
- **Developer Tools:** Git/Github, Linux, Postman, CI/CD, VS Code
- **Certifications:** Machine Learning Specialization (DeepLearning.AI, 2024), Python for Data Science & AI (IBM, 2020)