OMAR YOUSSEF

Full-Stack Software Engineer & Tech Startup Co-Founder | Based in Orange County, California
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EDUCATION

California State University, Long Beach - Bachelor of Science, Computer Science, *Summa Cum Laude* (highest honors)   2025
Orange Coast College (California) - Associate of Science, Computer Science, GPA 4.0 (President's List)   2023
EPITA School of Engineering and Computer Science (Paris, France) - Computer Science Preparatory Cycle   2020-22

TECHNICAL SKILLS

Programming Languages: C++, Java, Python, Dart, C, C#, Go, JavaScript, TypeScript, PHP, HTML/CSS, Haskell, OCaml, TeX
Frameworks, Libraries & APIs: Flutter, React, Next.js, Bootstrap, Shadcn, Node.js, RESTful APIs, GraphQL, Cross-Platform Development
Cloud, DevOps & Databases: Google Cloud (Serverless), AWS, Docker, VPS Setup (Ubuntu), SQL, MongoDB, Firebase, Oracle, CI/CD
Practices, Tools & Platforms: Agile/Scrum, Microservices, TDD, Unit & Integration Testing, Git, Jira, Figma, Security, Encryption, Scalability
Operating Systems & Virtualization: MacOS, Windows, Linux (Ubuntu, Arch, Kali), iOS, Android, VirtualBox, VMware, Hyper-V
Languages: English, French, Arabic (Trilingual) and basic Spanish (A2 level)

WORK EXPERIENCE

Co-Founder | SAFER Platforms (Tech Startup)   Aug 2022 - Aug 2025

Main Product: Carpooling Service Mobile App for iOS and Android   Flutter | Dart | Firebase | Figma | JavaScript | TypeScript | Node.js | PHP

- Spearheaded the entire project, leading all the teams involved (Technology, Design, Finance, Research, Product and Marketing)
- Responsible for the design, code architecture, and full implementation the application (frontend & backend) along with 1 other developer.
- Achieved a codebase of 150,000+ lines (backend, frontend, and admin panel), resulting in an efficient and user-friendly platform.
- Developed a comprehensive admin-view web application using Flutter to control the mobile app and monitor users and trip information.

Computer Science Tutor | CSULB College of Engineering   Sep 2024 - May 2025

- Successfully tutored Computer Science undergraduate students in several subjects (upper-division advanced classes).

Several Positions in Customer Service, Media, Sports, and Communication fields   2019 - May 2025

- Completed several internships and held positions at the UNFPA, OCC Enrollment Ctr., CSULB Rec. Ctr., among other organizations.

Cairo Centric TV Channel | Tarek Nour Communications   2016 - 2020

Assistant Software Developer   Part-Time (During High School)

- Assisted in developing and maintaining software for interactive live TV shows, increasing user engagement by 25%.
- Implemented 14 major feature enhancements in TV gaming software, leading to a 25% increase in user interaction.

IT Operator

- Managed technical operations for live game shows, ensuring 100% uninterrupted broadcasts across 30+ events
- Maintained and troubleshoot IT infrastructure, including servers and network systems

PROJECTS

Team Project Leader & Developer | DegreeMate - Degree Planner and AI Advisor   Aug 2024 - May 2025

State-of-the-art Degree Planner and AI-powered College Advisor   React | TypeScript | JavaScript | MongoDB | Prisma | Hono | Tailwind CSS

- Developed a sull-stack web application for college students to streamline degree planning using advanced scheduling algorithms and AI.
- Fine tuned a Large Language Model (LLM) for an AI-powered chatbot, providing accurate and efficient academic guidance for students.

Team Project Leader & Lead Developer | CyberChat - Secure Communication Web App   Jan - May 2024

Unique end-to-end encrypted direct messaging app   Flutter | Dart | Firebase | RSA Encryption | SHA-256 | TOTP Two-Factor Authentication

- Developed a secure communication app implementing end-to-end RSA encryption, providing safe message exchange between users.
- Built an encryption protocol using public/private keys, ensuring messages are encrypted using the recipient's public key and decrypted on the user's device using their private key, maintaining data confidentiality.
- Achieved the integration of robust cybersecurity measures into a user-friendly platform while addressing potential vulnerabilities.

Lead Software Developer | Deep Learning for Animal Classification: CNN & Transfer Learning   Apr 2024 - May 2024

- Developed two DL models for animal image classification: a custom CNN and a Transfer Learning model using VGG16 architecture.
- Implemented advanced data preprocessing techniques, including image resizing, normalization, and data augmentation (rotation, flipping, zooming) to enhance model robustness and improve generalization.
- Designed and trained the custom CNN model, achieving a final test accuracy of 74%, incorporating dropout regularization and early stopping to prevent overfitting.
- Leveraged Transfer Learning with VGG16, fine-tuning the model to achieve a 95% test accuracy, significantly outperforming the CNN, highlighting the power of pre-trained features in image classification.

GenCS.2025.08.29