Arsany Samuel

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Experience

Mar 2023 - Present

"Software Developer & DevOps Engineer"
Noury AG. (Switzerland - Remote)

- Contributed in Designing and implementing a robust backend application for the Noury's mobile app using Django Rest Framework, ensuring seamless and scalable API integrations.
- Maintained and optimized infrastructure and deployment configurations, focusing on automation for CI/CD pipelines to streamline development and deployment processes.
- Created and customized an ERP solution using Frappe/ERPNext, integrating and synchronizing data with multiple third-party sources to enhance operational efficiency.
- Provided mentorship to interns and team members, offering guidance on best practices and technical skills to foster professional growth and ensure successful project delivery.

Jun 2021 - Mar 2022

"Technical/Site Mechatronics Engineer"
Specialist Company for Engineering Solutions. (Alexandria, Egypt)

- Developed machine vision applications and user-friendly GUIs that integrates with SQL databases and other devices using network/serial communication.
- Designed mechanical and electronic circuits, including PCB layout.

Nov 2018 - Aug 2020

"Technical Academic Team Member."
Vortex Robotics. (Academic ROV Team)

- Participated in MATE ROV 2019 underwater robotics competition as an electrical/mechanical team member and ROV pilot.
- Participated in Underwater Robotics Challenges competition as a software team member.

Skills

• Software

Programming Languages: Python, Shell scripting, C, C++, Javascript, SQL.

Frameworks and Tools: Django, DRF, Docker, Kubernetes, Terraform, Helm, Bitbucket pipelines, GCP, Frappe, Git, Qt, OpenCV, Flask, Tensorflow.

Markup Languages: Markdown, LaTeX, HTML/CSS.

Others: Linux, EagleCAD, KiCAD, Circuit design, Microcontrollers, SolidWorks.

Projects

Noury Consumer App

- Designed and developed a scalable backend REST API using Django Rest Framework to support Noury's consumer mobile application.
- Optimized CI/CD pipelines and automated deployment processes using Docker for containerization and Kubernetes for orchestration, enhancing release efficiency, scalability, and minimizing downtime.
- Implemented monitoring and logging strategies to maintain API performance and reliability.

Noury Resource Planning

- Engineered a customized ERP system using Frappe/ERPNext, designed to streamline internal operations and enhance business efficiency.
- Implemented advanced data synchronization techniques to integrate multiple third-party data sources and APIs, ensuring real-time updates and accurate information across systems.
- Customized ERP modules and workflows to meet specific business needs, including automated reporting and process automation to improve operational efficiency.
- Optimized system performance and scalability, adapting the ERP solution to support growing business demands and evolving requirements.

Irrigation Controller	• Engineered a microprocessor-based system with advanced algorithms, integrating data from wireless weather stations and sensors to optimize watering needs. • Developed a customizable user interface, including kiosk, mobile app, and web portal, and implemented both wired and wireless communication methods. • Integrated a computer vision application to monitor field images, track irrigation processes, and maintain plant health, improving overall system efficiency.
Robotic Arm	• Engineered and manufactured a robotic arm with 6 degrees of freedom for automated agricultural product collection, equipped with an pneumatic powered manipulator and integrated system components to enhance efficiency in harvesting operations. • Implemented machine learning and computer vision to accurately identify and differentiate fruits and drive the arm to collect them.
Vortex ROV	• Contributed in the design and fabrication of a remotely operated underwater vehicle featuring two manipulators and a quad camera vision system. • Programmed the ROV for advanced control and operation for the MATE ROV Competition 2019 and Underwater Sea Challenges 2020. • Integrated the vehicle's components to ensure effective performance in harsh underwater environments.
Backwash Controller	• Created a microcontroller-based system to automate the backwash process of drip irrigation system filters. • Designed the unit for operation based on user-defined timing, differential pressure sensing, or a hybrid program.

Training and Certifications

March 2023	"Thinking and Creating with Code" *EPFL Extension School* `learn.extensionschool.ch/verify/VqOzbOAyD9pl`
September 2022	"CS50x" *Harvard University* `certificates.cs50.io/fe015e39-3d8e-48ad-a13b-4177ec41e108.pdf`
July 2021	"CSWE: Certified SolidWorks Expert - Mechanical Design." *Dassault Systèmes* C-6NMDPAQ9UE

Education

2016 - 2021	"B.S.E. in Agricultural Engineering" *Faculty of Agriculture, Alexandria University*