

# Sirine Achour

## Software Engineer

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Versatile software engineer, experienced in development and passionate about automation, DevOps and security

## WORK EXPERIENCE

### DevOps Engineer & Frontend Developer — Apr 2021 - Sep 2021

**Parcus Digital Solutions**, Tunisia

An emerging startup with multiple international projects

- Introduced DevOps practices to a web application.
- Designed CI/CD pipelines.
- Implemented a dynamic form builder.
- Managed user accounts, roles and access rights.
- Designed a user-friendly and functional UI.

**Applied skills** : Angular, Automation, Debugging, Documentation, Docker, Git, GitHub Actions, Testing, Web design

### DevOps Engineering Intern — Apr 2021 - Sep 2021

**University of Michigan**, USA

A highly ranked research university

- Troubleshoot an AWS server instance.
- Upgraded a web app to the latest Node version.
- Analyzed and evaluated files and database tables (automatically).
- Studied, compared and merged development and production code and databases.
- Containerized a web app.

**Applied skills** : AWS, Automation, Docker, Documentation, Express, MySQL, NodeJS, Putty, Python, Troubleshooting

### Web Development Intern — Jul 2020 - Aug 2020

**DOT IT e-business solutions**, Tunisia

A leader in e-business solutions in Tunisia

- Developed a Prestashop module for a website of a multi-location store :
- Designed and implemented a pop-up for re-routing a new user to a chosen shop location.
  - Implemented a tool for customizing the pop-up contents in the back-office

**Applied skills** : Git, Prestashop, Web design

## ACADEMIC PROJECTS

### • Chatroom — May 2021 - Present

An end-to-end encrypted and containerized chatroom.

[Server code](#) - [Client code](#)

**Applied skills** : Cryptography, Docker, ECIES, Git,LDAP, SonarQube, Security

## TECHNICAL SKILLS

### Software Engineering :

Advanced algorithms, Data structures, Design patterns, Distributed systems, Documentation, Test driven development, UML

### Programming Languages :

Bash, C/C++, C#, Java, Javascript, Typescript, PHP, Python

### DevOps :

AWS EC2, Cypress, Docker, Git, GitHub Actions, Kubernetes, OpenShift, Puppet, RabbitMQ, Selenium

### Web Development :

Angular, CSS, Express, HTML, NestJS, Prestashop, SCSS, Symfony, Vue.js, .Net Core

### Database Management :

MongoDB, MySQL, Oracle

### Other :

Arduino, Matlab, STM32, Unity

## SOFT SKILLS

Analytical thinking, Detail orientation, Flexibility, Teamwork, Written and oral communication

## EDUCATION

### National Engineering Diploma — 2017 - Present

**National Institute of Applied Sciences and Technology**, Tunisia

**Major** : Software Engineering

**Focus** : Software design/architecture, Development, Optimization, IT project management, Networks, Operating systems, Security

**Specialization** : Testing & DevOps

## CERTIFICATES

**Introduction to Containers with Docker, Kubernetes and OpenShift** — Present

**Pentesting and Securing Web Applications (EthicalHacking)** — Present

**Google IT automation with Python Specialization certificate** — Aug 2020

**General English diploma with honors** — May 2015  
Bourguiba institute of modern languages

## ACADEMIC PROJECTS

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### • **Collect/Connect** — Jan 2021 – May 2021

A single player educational card game that showcases the art work held at the [University of Michigan](#)'s library and studies the links between them. I worked, within the University of Michigan research team, on 2 of the project's 3 main axis:

- Frontend : Game design and implementation.
- Backend : Design and implementation of a database and a RESTful API.

**Applied skills :** AI, Database design, Documentation, Game design, Git, MySQL, NestJS, REST API, Security, Unity

### • **Administrative Website** — Jan 2021 – Feb 2021

A website for [INSAT](#)'s staff to manage students' end of studies projects.

[Frontend code](#) - [Backend code](#)

**Applied skills :** Angular, Database design, Git, HTML/CSS/JS, MySQL, NestJS

### • **Cryptographic Toolkit** — Nov 2020 – Jan 2021

A [console app](#) that offers a collection of cryptography tools :

- Hashing
- Encoding
- Key generation (RSA/ECIES)
- Symmetric encryption/decryption
- Asymmetric encryption/decryption
- Cracking hashes: simple brute force attack, identifying hashes, dictionary attack.

**Applied skills :** Cryptography, ECIES, Git, Python, RSA

### • **Implementing popular AI algorithms** — Nov 2020 – Jan 2021

Console games that implement popular AI algorithms.

- [Nim](#) : MiniMax algorithm with/without pruning.
- [Sliding Puzzle](#) : A\* algorithm that solves (if possible) any random sliding puzzle of any size.

**Applied skills :** AI, Complexity of algorithms, Optimization, Problem solving, Python

## SOCIAL ENGAGEMENT

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### **Winter Cup** — Feb 2020

Problem solving competition held at [INSAT](#)  
Competitive Programming with C++.

### **Fast and Furious** — Feb 2020

Robotics competition held at [INSAT](#)

Built a rally robot which involved low level programming with Arduino.

### **SheSolves** — Jan 2020

Problem solving competition held at [INSAT](#)  
Competitive Programming with Java.

### **ENICarthage Robots** — Dec 2019

Robotics competition held at [ENICarthage](#)

Built a Rough-road robot which involved low level programming with Arduino.

### **ACM INSAT CPC** — Feb 2018

Problem solving competition held at [INSAT](#)  
Worked within the organization team.

## INTERESTS

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Automation, Embedded systems, DevOps, Problem solving, Security, Technology

## LANGUAGES

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- **Arabic** (native)
- **English** (bilingual)
- **French** (limited working proficiency)
- **Spanish** (elementary working proficiency)