



Internship Opportunities with Astrolab

Empowering the next generation of tech innovators

2025

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Astrolab

Digital Agency

...

Our Expertise

- **Web and Mobile Development**

Building responsive, high-performance websites and mobile applications.

- **Graphic and UI/UX Design**

Crafting visually engaging and user-friendly designs that resonate.

- **Digital Marketing**

Implementing strategies to boost online presence and engage target audiences.

Our Commitment

- **Customized Solutions**

Each project is customized to meet the unique goals and requirements of our clients..

- **Comprehensive Support**

From concept to launch, we provide step-by-step guidance, ensuring client confidence at every phase.

Sculpting

success

through skillful

training

+10

Years of Experience

+450

Satisfied Customers

+500

Delivered Projects

Integrity

Creativity

Transparency



True to our values, we foster a dynamic network of forward-thinking professionals, dedicated to driving digital innovation and meaningful technological change and impactful results.

Excellence

Our goal?



To help you gain expertise and discover your unique strengths as you begin your successful career journey!

How? |

With hands-on learning, mentorship,
and real project experience.

| Why?

To empower students to grow their skills and build confidence in a dynamic, supportive environment.

A Day in the Life of an Intern:

What to Expect



1. Stand-Up with the Team

Participate in brief team meetings to discuss daily goals, project updates, and any challenges.

2. Project Work: Hands-On Experience

Dive into real projects: Coding, UI/UX design, or developing a social media strategy, and more!



3. Documentation and Reflection

Document learnings, challenges, and solutions to encourage reflective learning and organizational skills.

4. Peer-to-Peer Skill Sharing

Work with other interns or junior staff on mini-projects or knowledge-sharing sessions, reinforcing new skills and promoting a sense of community.



5. Wrap-Up and Set Goals for Tomorrow

End the day by summarizing completed work, setting new goals for the following day, and noting any questions or areas needing further input.

Join Us Today and Enrich Your Future

At Astrolab, you'll have the chance to **grow, innovate,** and **contribute** to projects that matter.

Let's build something extraordinary together!

[Start Your Journey Now](#)

Visit

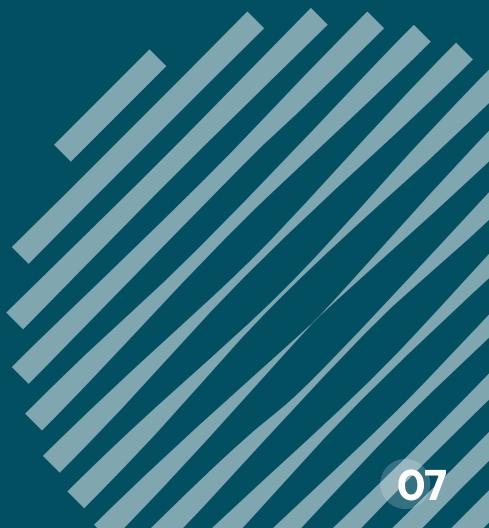
<https://jobs.talinty.com/?type=PFE>



TOPIC PROPOSALS

Topic Area:

Web Development



Project 1

Development of a Subcontracting Platform with Real-Time Tracking and Optimization

**Topic ID**

D01_2024

**Duration**

6 months

Description:

Create a web app to streamline delivery services with real-time order tracking, route optimization, and invoicing—all designed to boost efficiency, reduce delivery times, and improve user experience.

Tech Stack:

Backend: Node.js, Express/Nest;
Frontend: ReactJs;
Database: MySQL;
API Integration: Google Maps API;
DevOps: Docker, AWS

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Project 2

Building a Knowledge Base for Seamless Team Collaboration

**Topic ID**

D02_2024

**Duration**

4 to 6 months

Description:

Build a web platform for organizations to efficiently manage, share, and search information. Key features include collaborative editing, article categorization, and analytics to keep information accessible and up-to-date.

Tech Stack:

Backend: Node.js, Express/Nest ; Frontend: ReactJs

Database: PostgreSQL or MongoDB

API Integration: ElasticSearch for search functionality

DevOps: Docker, AWS

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Topic Area:

Machine Learning & Deep Learning



Project 3

Creating a Bilingual AI Chatbot with Instant Document-Based Answers

**Topic ID**

A01_2024

**Duration**

4 to 6 months

Description:

Develop a chatbot that communicates in English and Arabic, pulling precise information from uploaded documents to answer questions—a valuable tool for customer support or internal knowledge sharing

Tech Stack:

AI/NLP: Python, Hugging Face, OpenAI;
RAG: FAISS, Pinecone;
Backend: Node.js or Django;
Cloud: AWS, Azure

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Project 4

Developing Image Recognition for Instant Food and Nutrition Insights

**Topic ID**

A02_2024

**Duration**

4 to 6 months

Description:

Create an intelligent API that scans images of food items, identifies them, and provides detailed nutritional information such as calories, proteins, fats, and vitamins. This API is ideal for integration into diet tracking or meal planning applications, offering users real-time food recognition and nutrition data retrieval.

Tech Stack:

Backend: Python (FastAPI or Flask) for building the API

Image Recognition: TensorFlow or PyTorch with a pre-trained model (such as MobileNet or ResNet) for food classification

Nutrition Database: USDA FoodData Central or a similar nutrition dataset for retrieving nutrient information

Storage: AWS S3 or Google Cloud Storage for image storage (optional)

DevOps: Docker for containerization, GitLab CI/CD for deployment

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Project 5

Advanced OCR for the Arabic Language

**Topic ID**

A03_2024

**Duration**

4 to 6 months

Description:

Create a high-accuracy OCR web app for Arabic text extraction from images and scanned documents, supporting multilingual formats and aiming to improve digital archiving and document accessibility.

Tech Stack:

OCR Engine: Tesseract (with Arabic language support) or EasyOCR

Backend: Python (Flask or Django)

Frontend: React.js

Database: PostgreSQL or MongoDB for document storage

Cloud Services: AWS or Google Cloud for scalable processing (optional)

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Project 6

Smart Resume Parser & Job Matcher



Topic ID

A04_2024



Duration

4 to 6 months

Description:

Develop an intelligent API service that parses resumes to extract key skills, experience, and qualifications, then matches candidates to relevant job openings based on their profiles. Key features include automated resume parsing, skill matching algorithms, and customizable filters to streamline the hiring process for recruiters. This API can be integrated into existing HR platforms or job portals to enhance recruitment efficiency.

Tech Stack:

Backend: Python (FastAPI or Django) for API and data processing

NLP & Parsing: SpaCy, NLTK, or Transformers for text extraction and analysis

Database: PostgreSQL or MongoDB for storing resumes and job data

Machine Learning: Scikit-Learn or TensorFlow for skill and job matching algorithms

Document Parsing: PyMuPDF for PDF extraction, Apache Tika for multi-format support

Cloud Services: AWS or Azure for scalable storage and processing (optional)

DevOps: Docker for containerization, GitLab CI/CD for deployment

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Project 7

AI Assistant Development for Recruitment Automation

**Topic ID**

A05_2024

**Duration**

4 to 6 months

Description:

Develop an AI assistant for a recruitment platform designed to streamline hiring processes by automating essential admin tasks. The assistant should include features to generate tailored job descriptions, create role-specific skill assessments, and suggest requirement-focused questions. These automated tools will enhance efficiency and consistency in recruitment, providing admins with an intuitive solution to manage core hiring activities effortlessly.

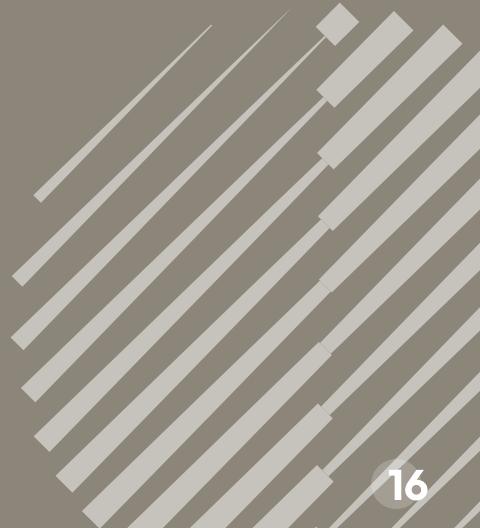
Tech Stack:

Python, TensorFlow/PyTorch, Natural Language Processing (NLP), REST APIs, SQL/NoSQL databases

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Topic Area:

Devops & Cloud



Project 8

Building Resilient Infrastructure with Advanced Backup and Monitoring

**Topic ID**

C01_2024

**Duration**

4 to 6 months

Description:

Define a comprehensive backup and monitoring strategy to ensure service continuity, covering backup frequency, retention, and restoration testing, along with proactive monitoring for early issue detection.

Tech Stack:

Backups : Scripting Bash et différents outils pour une sauvegarde flexible et rapide.
Monitoring : Prometheus, Grafana, ELK Stack pour la surveillance en temps réel, la visualisation des données de performance et l'alerting.

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Project 9

Standardizing CI/CD Pipelines with GitLab and Ansible for Seamless Deployment

**Topic ID**

C02_2024

**Duration**

4 to 6 months

Description:

Implement standardized CI/CD pipelines with GitLab CI and Ansible to streamline deployment, reduce errors, simplify maintenance, and boost team collaboration across the organization.

Tech Stack:

GitLab CI pour centraliser et uniformiser les pipelines de déploiement.
Ansible pour l'automatisation des configurations et des déploiements.

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Topic Area:

Digital Marketing

Project 10

Crafting a Digital Marketing and Communication Strategy

**Topic ID**

M01_2024

**Duration**

4 to 6 months

Description:

Develop a digital marketing plan for brand visibility and engagement across channels, from initial benchmarking to deployment and performance analysis, enhancing brand awareness and conversions.

Tech Stack:

Marketing Tools: Google Analytics, SEMrush, Hootsuite for social media management

Advertising Platforms: Google Ads, Facebook Ads Manager, Instagram, LinkedIn

Content Management: WordPress or HubSpot for content deployment

Design Tools: Adobe Suite (Photoshop, Illustrator) for creatives

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Project 11

Designing an International SEO Strategy to Boost Multilingual Reach

**Topic ID**

M02_2024

**Duration**

4 to 6 months

Description:

Establish a SEO strategy for a multilingual website targeting multiple countries, focusing on enhancing On-Page SEO, Off-Page SEO, and Technical SEO to boost global search visibility.

Tech Stack:

SEO Tools: Google Search Console, SEMrush, Ahrefs for keyword research and competitive analysis

Analytics: Google Analytics for traffic and conversion tracking

Content Management: WordPress or Drupal for multilingual content management

Optimization Tools: Screaming Frog for site audits, Google PageSpeed Insights for performance optimization

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Project 12

LinkedIn Marketing Strategy for a Recruitment Platform

**Topic ID**

M03_2024

**Duration**

2 to 4 months

Description:

Develop a brand toolkit to streamline and standardize the use of our existing branding assets across all channels. This project involves organizing and refining current design templates—such as email signatures, document templates, presentation formats, and social media assets—to ensure consistent and professional brand representation. The goal is to make brand application easy and uniform for all team members, reinforcing our visual identity.

Tech Stack:

Tools : LinkedIn Campaign Manager, Canva / Adobe Spark, Buffer / Hootsuite, Google Analytics / LinkedIn Insights, Sprout Social, Grammarly / Hemingway, SurveyMonkey / Typeform, Zapier

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Topic Area:

Design



Project 13

Standardizing Visual Elements for Cohesive Communication

**Topic ID**

E01_2024

**Duration**

1 to 4 months

Description:

Develop a brand toolkit to streamline and standardize the use of our existing branding assets across all channels. This project involves organizing and refining current design templates—such as email signatures, document templates, presentation formats, and social media assets—to ensure consistent and professional brand representation. The goal is to make brand application easy and uniform for all team members, reinforcing our visual identity.

Tech Stack:

Design Tools: Adobe Illustrator, Photoshop, or Figma for any minor adjustments to existing assets

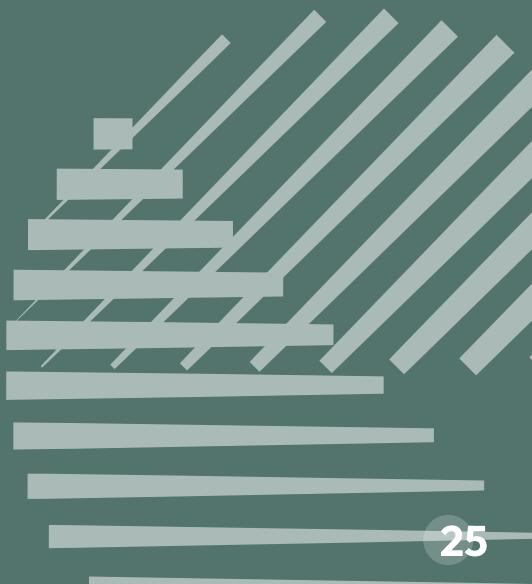
Documentation: Notion or Google Docs for easy-to-follow brand application guidelines

File Management: Dropbox or Google Drive for accessible storage and sharing of templates

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Topic Area:

Quality assurance



Project 14**AI-Driven Automated Test Case****Generation and Execution****Topic ID**

T01_2024

**Duration**

4 to 6 months

Description:

Implement an advanced AI-driven solution that automatically generates comprehensive test cases based on application requirements or user stories. These dynamically generated test cases will be executed in a controlled test environment, with results automatically documented and reported for instant insights. This project involves harnessing powerful machine learning models or AI-based tools to streamline test case creation and seamlessly integrate them with robust test automation frameworks, setting a new standard for efficient, scalable, and intelligent testing processes.

Tech Stack:

Test Automation: Selenium / Appium (for UI testing), Pytest / JUnit / TestNG, Cucumber
CI/CD: Jenkins / GitLab CI / CircleCI, Docker

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Thank You for Considering Astrolab

As we yearly bring on interns to tackle exciting and impactful project, we're excited to potentially work with passionate, talented individuals like you who are eager to make a real impact in the tech world!



Take part of the next generation of tech talent today!

Apply now and take the first step toward a successful future in tech!



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