



Full Stack JavaScript Developer Nanodegree Program

Ahmed El-Farrash



OutSystems Tech Lead
Certified Tech Lead & Reactive
Developer.



Full-Stack Developer
Expert in .NET, JavaScript, Angular,
React, C#, Node.js, SQL Server.



Educator & Mentor
Experienced in teaching and
mentorship roles at Udacity and
AMIDEAST.

[Email](#) | [LinkedIn](#)

Core Technical Expertise

Platforms & Frameworks

- OutSystems (Certified Tech Lead & Reactive Developer)
- Full-Stack .NET (ASP.NET MVC, Angular)
- Frontend: JavaScript, GoJS, CornerstoneJS, Angular, React
- Backend: C#, SQL Server, RabbitMQ, Node.js

Specialized Domains

- Healthcare IT
- Government Sectors
- Banking Solutions
- Computer Vision & ML

Key Projects & Innovations



Healthcare Innovations

PACS Viewers (Paxtreme, PaxVu), Clinics Management Systems (El-Hakeem, Dentalore), Chemo-Therapy Module.



Banking & Finance

Due Diligence & Internet Banking Portals (CBD UAE).



Image Processing & Research

Ultrasound imag processing and classification

Lecturing & Mentorship

Teaching Roles

- Udacity: Full-Stack Session Lead (2022–2023)
- AMIDEAST: HEI Mentor

Courses Designed/Delivered

- ASP.NET MVC for Beginners
- Image Processing (Undergraduate)
- Machine Learning Workshops

Nanodegree Program Prerequisites

To optimize your success, ensure you have knowledge in these areas:

Web Fundamentals

CSS, HTTP, DOM Events, Command Line Interface
Basics.

Scripting & Data

Scripting, JSON, Basic TypeScript, Object-Oriented
JavaScript.

Fluency in written and spoken English is also required.

Backend Development with Node.js

This course covers fundamental tools for building scalable and maintainable APIs.

Key Topics

- Node.js & Core Modules
- TypeScript for Error Reduction
- Unit Testing with Jasmine (TDD)
- Express Framework for APIs

Skills Gained

- API Testing
- Asynchronous JavaScript
- File I/O
- TypeScript Typing & Setup

Creating an API with PostgreSQL and Express

Master the skills for robust API development, building secure RESTful JSON APIs.



Database & Querying

PostgreSQL, SQL queries, database schemas, migrations.



Security & Auth

Password hashing, JWTs, route authorization, application security best practices.



API Architecture

REST APIs, CRUD model, testing environments, coding best practices.

Refresh your resume

- Resume Building & Review
- LinkedIn Profile Optimization
- Personal Branding & AI
- Interviewing Skills (STAR Method)

Angular Fundamentals

- Angular CLI & Components
- Templates & Directives
- Data Binding & Routing
- Dependency Injection

Strengthen Your LinkedIn Profile

Uncover the secrets of constructing an eye-catching LinkedIn profile to expand your professional horizons, and submit your profile to be reviewed by our industry experts. You will receive personalized guidance on how to make your profile

Timeline (Part 1)

Week Number	Week Starts On	Project Due Date	Title of Due Project	Session Topic	Career Sessions time and links
Week 1	11-Aug-25			Welcome to the Fullstack Javascript Nanodegree Program part: - An Introduction to Your Nanodegree Program - Getting Help	
Week 2	18-Aug-25			Backend Development with Node.js part: - Foundations of Backend Development - Getting Started with Node.JS	
Week 3	25-Aug-25			Backend Development with Node.js part: - Developing with TypeScript - Unit Testing with Jasmine	Self Discovery & job identification -Self Assessment techniques -Setting Career Goals -Job Market Analysis -Exploring & understanding Career Options
Week 4	1-Sep-25			Backend Development with Node.js part: - Building a Server	

Timeline (Part 2)

Week Number	Week Starts On	Project Due Date	Title of Due Project	Session Topic	Career Sessions time and links
Week 5	8-Sep-25	8-Sep-25	Image Processing API	Backend Development with Node.js part: - Image Processing API	Resume Building -Resume purpose and mindset when crafting your resume -Resume 2024 trends -Resume Dos & Don'ts and common mistakes -Tailoring Resumes -Overriding ATS (Applicant tracking systems)
Week 6	15-Sep-25			Creating an API with PostgreSQL and Express part: - Introduction to Building APIs with Postgres and Express	
Revoking Date: Sep 15, 2025					
Week 7	22-Sep-25		How To Write A Resume To Get Hired	Creating an API with PostgreSQL and Express part: - Databases and SQL	Personal Branding -What's Personal Branding -Personal Branding Process -Establishing Strong Online Presence -How to use AI in Personal Branding
Week 8	29-Sep-25			Creating an API with PostgreSQL and Express part: - Create an API with a PostgreSQL connection	
Week 9	6-Oct-25			Creating an API with PostgreSQL and Express part: - Create an API with Express	LinkedIn & Github -LinkedIn: Utilizing LinkedIn features and tools + LinkedIn privacy and security settings -LinkedIn: General guidelines, Dos & Don'ts & profile hygiene -Cover letter -Github

Timeline (Part 3)

Week 10	13-Oct-25			<p>Creating an API with PostgreSQL and Express part:</p> <ul style="list-style-type: none"> - Authentication and Authorization in a Node API 	Soft Skills - Communication & Presentation Skills <ul style="list-style-type: none"> -Effective Communication -Interpersonal Communication -Professional Communication Etiquette -Public Speaking Skills
Week 11	20-Oct-25			<p>Creating an API with PostgreSQL and Express part:</p> <ul style="list-style-type: none"> - SQL for advanced API functionality 	
Week 12	27-Oct-25	27-Oct-25	Build A Storefront Backend	<p>Creating an API with PostgreSQL and Express part:</p> <ul style="list-style-type: none"> - Build A Storefront Backend 	
Week 13	3-Nov-25			<p>Angular Fundamentals part:</p> <ul style="list-style-type: none"> - Foundations of Angular Development 	Interviewing Skills <ul style="list-style-type: none"> -Introduction to behavioral interviews -STAR Method -Common Behavioral Interview Questions -Addressing Challenges and Failures -Preparation Strategies & Closing the Interview
Week 14	10-Nov-25		Optimize Your LinkedIn Profile For A New Role	<p>Angular Fundamentals part:</p> <ul style="list-style-type: none"> - Angular Overview - Components 	Generic Career pathway AMA
Week 15	17-Nov-25			<p>Finish the lessons below from the Angular Fundamentals part:</p> <ul style="list-style-type: none"> - Libraries & Services 	Angular Fundamentals part: - Libraries & Services
Week 16	24-Nov-25			<p>Finish the lessons below from the Angular Fundamentals part:</p> <ul style="list-style-type: none"> - Data 	Angular Fundamentals part: - Data
Week 17	1-Dec-25	2-Dec-25	My Store	<p>Finish the lessons below from the Angular Fundamentals part:</p> <ul style="list-style-type: none"> - My Store <p>Submit the 3rd project: My Store</p>	Angular Fundamentals part: - My Store
Week 18	6-Dec-25			End Date (FINISH & GRADUATE)	

2012.20-12/02)

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Program Timeline: Key Milestones

	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Primary Handled	14	02	41	2	19	16	35	27	
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120PM									
130PM									
1:00PM									
15:00PM									
11:00PM									
12:30PM									

Week 1-4: Backend Development with Node.js

Week 5: Image Processing API Project Due

Week 6-12: Creating API with PostgreSQL & Express

Week 12: Build A Storefront Backend Project Due

Week 13-17: Angular Fundamentals

Week 17: My Store Project Due

Week 18: Program End & Graduation

ANY QUESTIONS?



