Full Stack C#/.NET + Java

Become a Full Stack Developer in just 12 weeks

GRAND CIRCUS

A dexian Company

Grand Circus Bootcamp

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Why Grand Circus?

Grand Circus has been changing lives and launching individuals into prosperous tech careers since 2013. We are committed to the premise that everyone – regardless of who they are or where they are in life – can learn to code and enjoy the flexibility, financial security, and fulfilling work that comes with a career in tech.

Our bootcamps use a learn-by-doing approach that equips you with the latest technologies, professional know-how, and career skills that companies are looking for. Along the way, you get personalized support and guidance every step of the way from our expert instructional staff, industry-savvy career coaches, and experienced alumni. Our graduates have landed roles with Amazon, Rocket Mortgage, Ford, and many more top employers. We have partnered with large tech companies, such as Apple, Google, and Meta to make tech careers more accessible to everyone.

In 2022, Grand Circus was acquired by Dexian and now operates as part of the Dexian platform of solutions to fill talent gaps for high-demand technical talent with national and global companies.

Program Overview

Grand Circus's Full Stack C# .NET + Java Bootcamp takes you from coding novice to programming powerhouse in as little as 12 weeks. Both C# and Java are popular languages for back-end web development. This bootcamp combines the versatility of both back-end languages with the powerful Angular front-end framework. But our program doesn't just teach coding skills. We integrate critical professional skills such as coding best practice, collaboration, and modern methodology. We'll also help you prepare for your job search with one-on-one career training. By the end of the bootcamp, you'll be ready for an entry-level position as a full stack developer in C# and Java.

PRE-WORK: Fundamentals of Programming

A pre-work module introduces the fundamentals of programming in C# and gets you hands-on experience with some of the industry standard tools.

PART 1: Programming with C# and Java (4 weeks)

Part 1 grounds you in the fundamentals of two powerful but related programming languages: C# and Java.

PART 2: Front End Web Development (3 weeks)

Part 2 introduces JavaScript and TypeScript, to add interactivity and functionality, and you'll learn Angular, a powerful framework for front-end applications.

PART 3: Back End and Full Stack Development (3 weeks)

Part 3 will connect your knowledge of front end and back end into a complete application.

PART 4: Final Capstone Project (2 weeks)

Part 4 focuses on building a portfolio project: a web application that brings together everything you have learned.

Program Details

At Grand Circus the bootcamp curriculum is meticulously designed to ensure you become technically proficient, but also professionally prepared and career-ready.

PRE-WORK: Fundamentals of Programming

All students are required to complete a short module prior to the start of the bootcamp. This module introduces the fundamentals of programming that will get you ready and hone your skills before the start of the bootcamp. You'll learn to use of essential industry tools and be introduced to the fundamentals of coding in C#.

This module is self-paced online. It includes resources, examples, videos, and exercises. Complete two short programming assignments to pass this module and be ready for the start of your bootcamp!

Topics and Technologies

Introduction to Development Tools

- VisualStudio
- Commandline
- Source control (Git & GitHub)

Programming Basics

- Console applications
- Variables and datatypes
- Conditionals
- Loops

PROJECT: Code a small game and calculator

PART 1: Programming with C# and Java (4 weeks)

Welcome to bootcamp! Learn the ins and outs of programming with two similar backend language: C# and Java. Develop the skills of a true software developer: problem-solving, crafting quality code, debugging, using your tools well, and teamwork.

In the classroom setting, you will have lectures and demonstrations along with individual, pair, and group labs. This module culminates in a group project using C# to create an object oriented console application.

Topics and Technologies

Fundamentals of C#

- Conditionals and loops
- String manipulation
- Debugging
- Methods
- Pair programming
- Coding best practices

Object Oriented Programming

- Introduction to OOP
- Classes and objects
- Properties and constructors
- Inheritance and polymorphism
- Interfaces
- Abstract classes
- Data structures
- Best practices for Git & GitHub in a team environment

PROJECT:
Object oriented console application

Collections and Exceptions

- Arrays
- Collections (List, Dictionary)
- Generics
- Linq
- Exception handling
- Algorithms

Advanced OOP

- Unit Testing and Test-Driven Development
- SOLID Development Practices
- Design patterns
- .NET Assemblies and references
- NuGet Package Manager
- File I/O

Java

- Java programming
- Similarities and differences between Java and C#
- Common uses for each language

PART 2: Front End Web Development (3 weeks)

With a foundation in programming in place, we'll turn to the front-end to make robust, accessible, and dynamic web pages. We'll move from JavaScript, a language that lets us provide interactivity within the web browser, to TypeScript, which adds additional structure and object-oriented possibilities.

Angular is a powerful framework for front-end applications. Using it, you can create code that is more readable, maintainable, and modular. We'll focus especially on creating Single Page Applications (SPAs). The project for this module is an Angular web application built collaboratively in a team environment.

Topics and Technologies

Web page layout and design

- HTML
- CSS

Web page interactivity

- JavaScript
- TypeScript
- Document Object Model (DOM)
- Web application architecture

Front-end Framework

- Single Page Applications (SPAs)
- Angular

PROJECT: Single Page Angular Application

PART 3: Back End and Full Stack (3 weeks)

Front end web applications need a back end to provide data storage, security, and heavy-lifting for data processing. Learn how to store and manipulate data with Microsoft SQL Server database. Build REST APIs in C# and Java to provide the vital link between the front end and the database. Top it off with sophisticated Angular applications that take full advantage of these back ends to provide a rich data-driven user experience.

Topics and Technologies

SQL Database

- Microsoft SQL Server
- SQLServer Management Studio (SSMS)
- Structured Query Language (SQL)
- Creating, Reading, Updating, and Deleting (CRUD) data
- SQL relationships and joins

REST APIs

- REST APIs
- ASP.NET Core
- Entity Framework Core
- Spring Boot
- Spring Data

Full Stack Angular

- RESTful CRUD API access
- Asynchronous data management
- Microservices architecture

PROJECT: Prep for Capstone Project

PART 4: Final Capstone Project (2 weeks)

Design and build a web application that brings together everything you have learned. It will include a C# backend with an API, a SQL database, and an Angular front end, all hosted in the cloud.

Topics and Technologies

- Full stack development
- Azure cloud hosting and deployment
- Agile and Scrum development
- CI/CD

A Typical Day in the Bootcamp

Daytime (M, T, W, Th, F)	After Hours (M, W, Th)
Morning • Review labs from the previous session. • Introduce new topics, lectures, demos, code-a-longs, and exercises • Group and individual work	Morning • Normal day • Self study
Afternoon • Review labs from the previous session. • Introduce new topics, lectures, demos, code-a longs, and exercises • Group and individual work	Afternoon • Normal Day • Prepare for next session
Evening • Self study • Optional tutoring sessions (as needed) • Update LinkedIn, polish resume, etc. • Prepare for next day	Evening • Review labs from the previous session. • Introduce new topics, lectures, demos, code-a-longs, and exercises • Group and individual work • Work on labs for day's topic

Jobs Opportunities

Even though the employment market has fluctuated in recent months, the tech industry is still growing strong. The demand for talent that can work with technology is expanding. According to the U.S. Bureau of Labor Statistics (BLS), employment for software developers is projected to grow more than 25% from 2022 to 2032, which is much faster than the average for all occupations. This growth is expected to create an estimated 410,400 new jobs.

The demand for software developers will continue to grow because of continued technological advancements and emerging business initiatives that push for digital transformation. As new technologies like artificial intelligence (AI), machine learning (ML), and cloud computing emerge, there will be an increased need for professionals who can work with technology. Business runs on software, so there will be a continued need to maintain and innovate that technology so businesses can continue to do business.

Grand Circus bootcamps can provide you with a solid foundation in the skills and tools that will put you on the right path for a career in tech. According to ZipRecruiter, as of January 2024, the average yearly salary for a C# or Java developer in the United States is around $115,000. Compensation can vary based on factors such as skill level, location and years of experience.

Some job titles you can look for with skills in C#/.NET + Java:

- Junior Software Developer
- Junior Software Engineer
- Application Developer
- Backend Developer
- Frontend Developer
- Full Stack Developer
- Software Architect

Career Services

Kick-starting a career in technology is about more than learning the technical skills you need to succeed. You need the right mindset and career planning. As part of the bootcamp experience, students complete an integrated curriculum that focuses on soft-skills and career planning that can launch you on your career trajectory.

Soft-skills training includes:

- Imposter Syndrome
- Career Exploration and Resume Building
- LinkedIn Profiles
- Job Strategies
- Interview Preparation
- Job Search Kick Off

In addition, our amazing Career Services staff offer 1-1 coaching sessions, organize Mastermind groups, and connect you with industry mentors. Once you have graduated, you have access to career services for life. These benefits extend to after you graduate, land your first tech role, and your second, and so on. It is just another advantage of being part of the Grand Circus family. We are always here to help you: When you are here, you are family!