

## Grand Circus Bootcamp

# Full Stack C#/.NET + Java

Become a Fullstack Developer in just 12 weeks

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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.



A Dexian Company

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# 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 (2 weeks)**

All students are required to complete a short series of online lessons prior to the start of the bootcamp. This module introduces the fundamentals of programming in C# and gets you hands-on experience with some of the industry standard tools. You will be required to complete two short programming assignments.

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

Learn the ins and outs of programming with two backend languages: C# and Java. Develop the skills of a true software developer: problem-solving, crafting quality code, debugging, using your tools well, and teamwork. This module culminates in a group project using C# to create an object oriented console application.

- **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. After being introduced to JavaScript and TypeScript, languages which add interactivity and functionality to web pages, you'll learn Angular, which is a powerful framework for front-end applications. The project for this module is an Angular web application built collaboratively in a team environment.

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

Front end web applications need a back end to provide data storage, security, and heavy-lifting for data processing. You'll learn how to store and manipulate data with Microsoft SQL Server database and build REST APIs in C# and Java to provide the vital link between the front end and the database. You'll integrate your back-end with sophisticated Angular applications in preparation for your Final Capstone Project.

- **PART 4: Final Capstone Project (2 weeks)**

Design and build a portfolio project: 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.

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## 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 (2 weeks)**

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**
  - Visual Studio
  - Command line
  - Source control (Git & GitHub)
- **Programming Basics**

- Console applications
- Variables and data types
- 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
- **Collections and Exceptions**
  - Arrays
  - Collections (List, Dictionary)
  - Generics
  - Linq
  - Exception handling
  - Algorithms
- **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
- **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
- **PROJECT:** Object oriented console application

## 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

<b>Daytime (M, T, W, Th, F)</b>	<b>After Hours (M, W, Th)</b>
<p>Morning</p> <ul style="list-style-type: none"> <li>• Review labs from the previous session.</li> <li>• Introduce new topics, lectures, demos, code-a-longs, and exercises</li> <li>• Group and individual work</li> </ul>	<p>Morning</p> <ul style="list-style-type: none"> <li>• Normal day</li> <li>• Self study</li> </ul>
<p>Afternoon</p> <ul style="list-style-type: none"> <li>• Break for lunch</li> <li>• Return to review morning topics</li> <li>• Work on labs for day's topic</li> </ul>	<p>Afternoon</p> <ul style="list-style-type: none"> <li>• Normal Day</li> <li>• Prepare for next session</li> </ul>
<p>Evening</p> <ul style="list-style-type: none"> <li>• Self study</li> <li>• Optional tutoring sessions (as needed)</li> <li>• Update LinkedIn, polish resume, etc.</li> <li>• Prepare for next day</li> </ul>	<p>Evening (6:30pm-10:00pm)</p> <ul style="list-style-type: none"> <li>• Review labs from the previous session.</li> <li>• Introduce new topics, lectures, demos, code-a-longs, and exercises</li> <li>• Group and individual work</li> <li>• Work on labs for day's topic</li> </ul>

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# 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



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# 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!

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## How to get started with Grand Circus

### **Step 1: Let us know you're interested!**

Submit our quick web form. We'll be in touch with information about our bootcamps, career outcomes, and the support system you'll have throughout the process.

### **Step 2: Get your questions answered!**

We know you've probably got a ton of questions. That's what we're here for! We'll do our best to get all your questions answered and help you make the right decision—for you. You can email us directly at [admissions@grandcircus.co](mailto:admissions@grandcircus.co), call us at 313-338-2780, or text us at 313-513-4945.

**Step 3: Attend an Introduction to Coding workshop** (Optional). Get a feel for what bootcamp will be like by attending our free Intro to Coding workshop. Attending a workshop isn't required, but it's a great way to see what coding is like—or to get a refresher.

#### **Step 4: Apply to bootcamp**

There's no time like the present — take the next big step in your path to a new career and life. The information you provide in your application will help us connect you with scholarships and financial aid.

#### **Step 5: Interview with our Admissions Team**

After we've reviewed your application, if you're selected to proceed, you'll receive an email and text message from us with information on scheduling an interview with our Admissions Team.

#### **Step 6: Pay a small deposit**

At the appropriate time, we'll ask you to pay a \$250 deposit to reserve your spot in bootcamp. That amount will be deducted from your tuition. It is non-refundable after 3 days.

#### **Step 7: Complete & pass Pre-Work**

Before Orientation Night, every bootcamp student completes mandatory pre-work. This work provides the foundation for the bootcamp lessons and covers fundamentals that all successful developers need to know. But you're not on your own: we'll help you troubleshoot all your pre-work questions.

#### **Step 8: Start your bootcamp experience and launch your career in tech!**

Good luck! Grand Circus is here to support you through your learning experience and job search and beyond!

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## **Scholarship and Financing Options**

<https://www.grandcircus.co/finance-scholarships/>

The first step to qualify for scholarships and financing is to apply for bootcamp. The information you provide will help us connect you with scholarships and financial aid.

## Financing Options

The following are financing partners we carefully choose to work with. All loan options have been vetted by our admissions team and are both fair and reasonable to borrowers.

- Ascent Funding
- Climb Credit

For those who qualify, there may be additional options for funding, including local workforce development support, National Guard State Tuition Assistance programs, and more. Ask your Admissions Counselor for more information during your interview!

## Scholarship Options

- Grand Circus Diversity Scholarship
- Grand Circus Service Scholarship
- Michigan Council of Women in Technology (MCWT) Scholarship
- Dexian Futures

## Early Application Discount

The early bird gets the worm. [Apply 60 days or more before the start of bootcamp](#) for a \$1,500 discount off tuition.

Connect with an admissions staff to find out which option fits your needs best.