

# Software Development Technical and Career Support Curriculum

Full-Time | 2023 – 2024 Curriculum



## Tech Elevator prepares you for a successful career in software development.

Now more than ever, software development is a highly valued technical literacy. The U.S. Bureau of Labor Statistics forecasts that employment in this sector will grow 25% over the next 10 years. It's become clear that no matter the market conditions, the skills of a software engineer will be critical to business success spanning industries.

Tech Elevator's coding and career prep bootcamp have made career change possible for more than 3,500 individuals nationwide.

What's more, we see an average \$1.6 million dollar lift in lifetime earnings for each individual graduate! Regardless of age, lifestyle, technical background or level of education, the curriculum is designed to take individuals with little to no coding background and transform them into software engineers within 14 to 30 weeks.

**Our outcomes lead the coding bootcamp industry, with in-person and online courses, full-time and part-time options, an expert career preparation program and and instructors with real-world experience.**

**850+**  
hiring partners  
nationwide

Placed  
**3,500+**  
graduates in technical  
jobs across  
115 industries

Increased alumni earnings  
(on average) to  
**+\$24,000**

**See a few companies that  
have hired our grads:**

JPMORGAN  
CHASE & CO.

  
**accenture**

 **Nationwide®**

  
**DICK'S**  
SPORTING GOODS

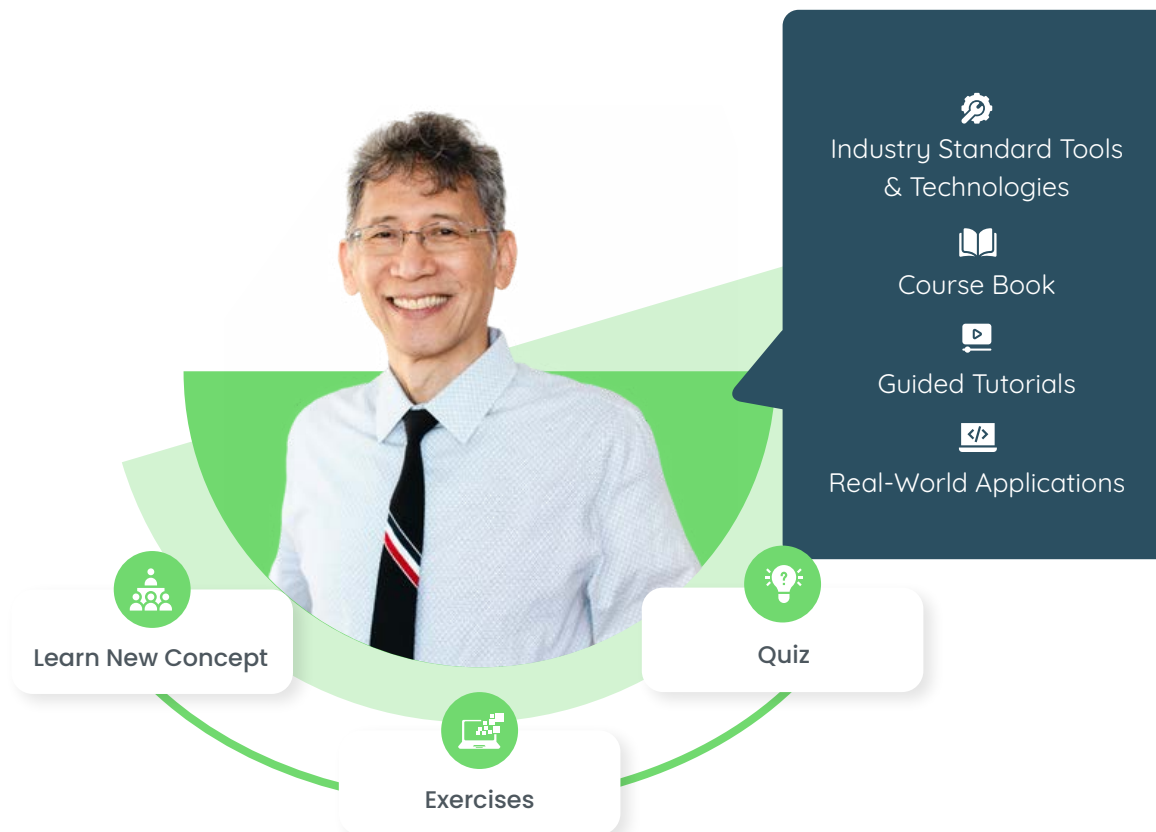
**Ready to get started? Your career reinvention is weeks away.**  
Keep reading for more on what to expect in Tech Elevator's coding bootcamp.





# Software Engineering Technical Curriculum Overview

Throughout our program, we simplify complex coding concepts and immerse you into a learning environment with exercises, guided tutorials and supplementary reading materials. Our curriculum was developed and tailored by expert practitioners with a focus on you developing comprehension through hands-on experience. After completing the program, which includes 40-50 hours per week of intensive learning and coding, you'll emerge job-ready for your future role.



## Full-Stack Development Using Java or C#

We teach the languages and fundamental concepts necessary to build a strong coding foundation. The curriculum promotes student collaboration to develop working solutions for real-world problems. Throughout the program, you will work on three capstone projects (following each module) that prepare you for real-world development and expose you to what it's like to work with other developers.

With the depth and breadth of our curriculum, you'll graduate ready to step into your new job role as a high-value professional.

## Full breakdown of the full-time coding bootcamp curriculum:



Student to instructor ratio:

**15:1**



Class hours:

**160**



Lab hours:

**~290**



Total hours of coding (includes capstone projects):

**450+**



Career Support:

**~45 hours**



## MODULE 1: Introduction to programming in Java or C#

Upon completing module one, you'll establish strong foundational programming skills with Java or C#. The module spans four weeks for full-time students. At the conclusion of this module, you'll understand the building blocks of programming with variables, collections of data, testing and troubleshooting code. You'll also develop an application that models real-world problems.

You can also expect to write conditional code that can help make decisions, use collections to organize data sets, and leverage object-oriented programming principles for code modularity. See the breakdown by week.



OR



### WEEK 1

- Command-line basics
- Version control using Git
- Variables and datatypes
- Arrays
- Conditional and iteration logic

### WEEK 2

- Classes and objects
- String manipulation
- Collections

### WEEK 3

- Encapsulation, inheritance, polymorphism
- Interfaces
- Abstract classes
- Unit testing

### WEEK 4

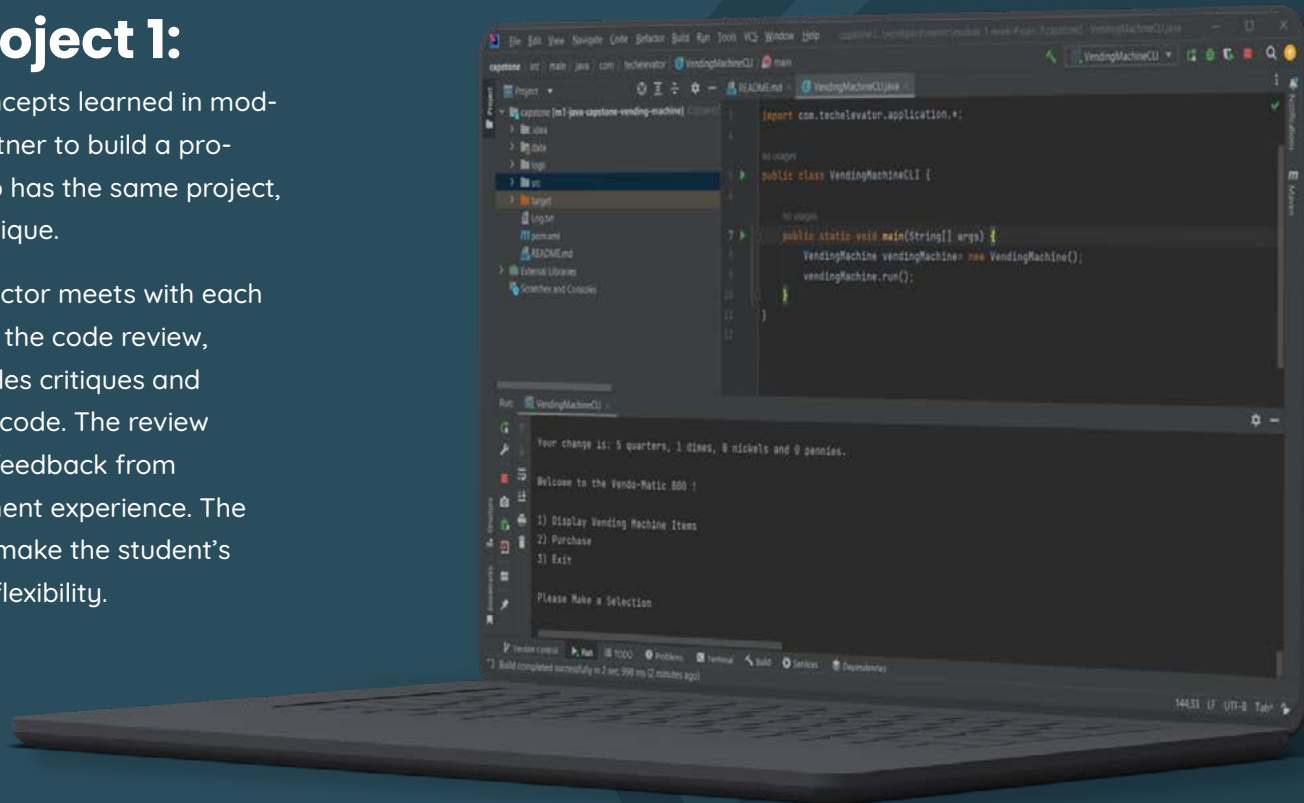
- File I/O
- Exceptions
- Error handling
- Mini Capstone



## Mini Capstone Project 1:

The first capstone project covers concepts learned in module one. Students team up with a partner to build a program from scratch. While each group has the same project, the final implementation is always unique.

At the end of the capstone, the instructor meets with each group and reviews their code. During the code review, the instructor poses questions, provides critiques and encourages students to explain their code. The review session aims for students to receive feedback from someone with professional development experience. The instructor provides suggestions that make the student's code easier to read or have greater flexibility.

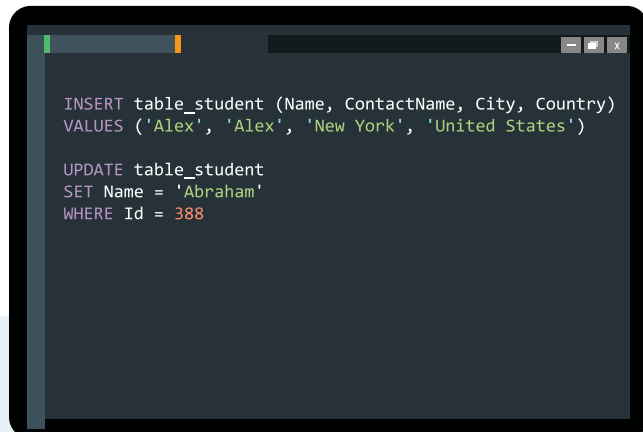




## MODULE 2: Client-Server Programming

Write code that lets you communicate with other applications to save and retrieve data. You'll learn to develop applications that use SQL to communicate with databases and learn how to work with and build APIs to share your data with other applications.

To the right, see weekly lessons for the full-time program (weeks 5 - 8).



```
INSERT table_student (Name, ContactName, City, Country)
VALUES ('Alex', 'Alex', 'New York', 'United States')

UPDATE table_student
SET Name = 'Abraham'
WHERE Id = 388
```



### WEEK 5

- Introduction to relational databases
- SQL (SELECT, INSERT, UPDATE, AND DELETE)
- Ordering, limiting and grouping
- Primary and foreign keys
- Joins
- Relational schemas and database design

### WEEK 7

- Networking and HTTP
- Building RESTful APIs
- Server-side APIs

### WEEK 6

- Data persistence
- Data Access Object pattern
- Data Access Object testing
- Data security

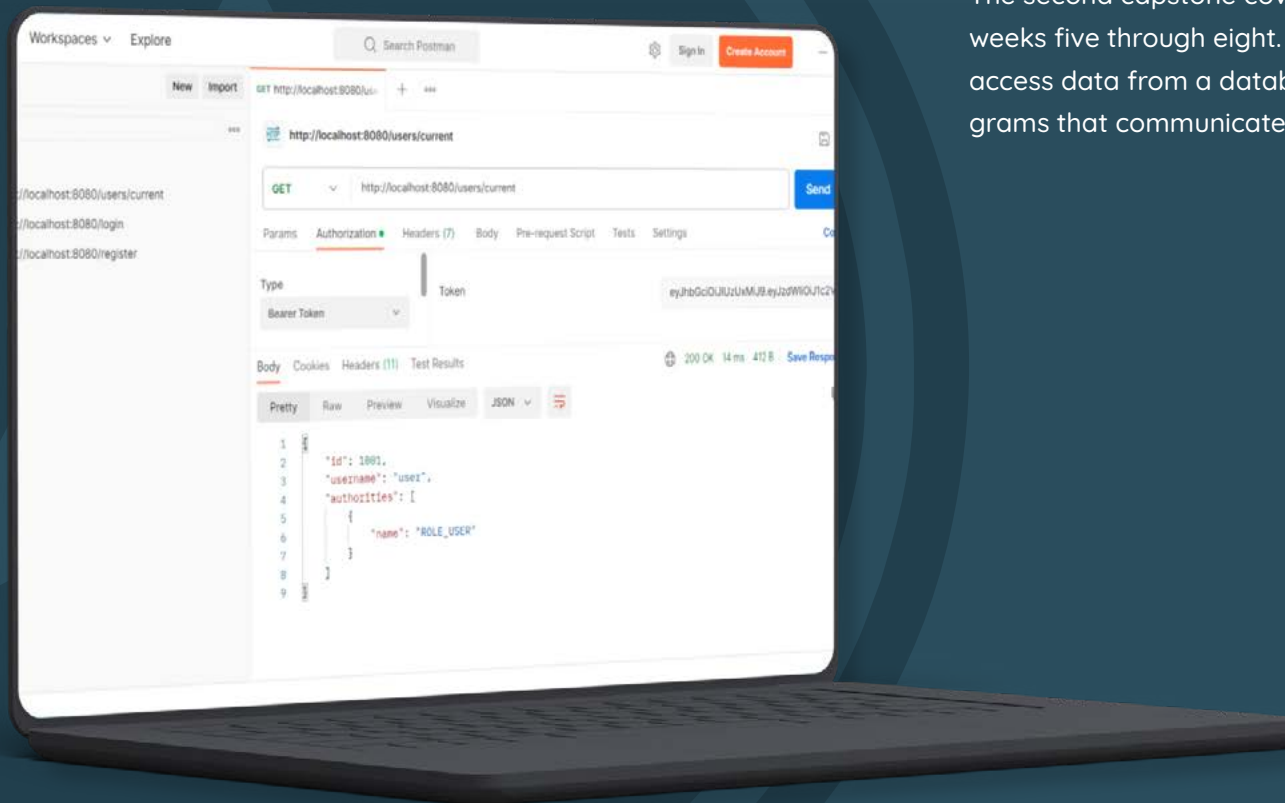
### WEEK 8

- Securing APIs
- Authentication and authorization
- JSON Web Tokens (JWTs)
- Mini Capstone



## Mini Capstone Project 2:

The second capstone covers concepts and skills learned in weeks five through eight. Students learn how to store and access data from a database using SQL and build programs that communicate over a network using HTTP.





## MODULE 3: Web Application Development

Learn how to build web applications using HTML, CSS, and JavaScript. These technologies enable your applications to provide dynamic, interactive experiences for your users through a web browser.

To the right, see weekly lessons for the full-time program (weeks 9 - 12)



### WEEK 9

- HTML and CSS
- CSS Grid
- CSS Flexbox
- Responsive design

### WEEK 10

- JavaScript
- DOM manipulation
- Event handling

### WEEK 11

- Vue.js framework
- Component-based development

### WEEK 12

- Vue routing
- Component-based communication
- Asynchronous code
- Integrating APIs

### WEEK 13 & 14

- Final Capstone Project



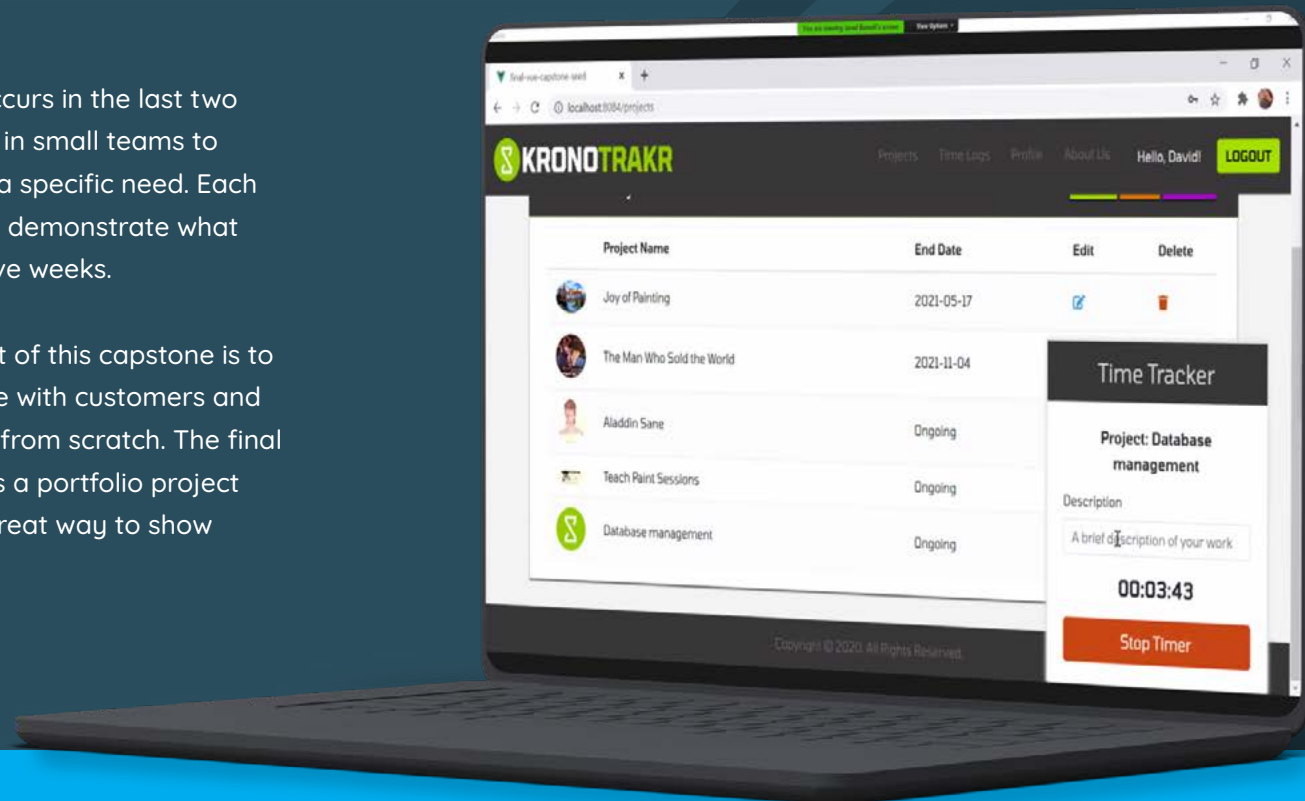


## Final Capstone:

We refer to the preceding projects as “mini” capstones because they cover a limited selection of concepts. The final project encapsulates everything that students learn throughout the program.

In the final capstone project, which occurs in the last two weeks of the program, students work in small teams to create an application that addresses a specific need. Each group receives a project to apply and demonstrate what they’ve learned in the preceding twelve weeks.

Beyond building an application, a part of this capstone is to experience what it’s like to collaborate with customers and other developers to create a product from scratch. The final application you create can be used as a portfolio project during your interview process. It’s a great way to show employers what you’ve learned.



### Here’s how the final capstone project works:

- Workgroups are assigned their project.
- Each group of students represents the development team, while a Tech Elevator staff member is the product owner or customer. Their instructor is the scrum master and helps keep the team accountable and on track.
- The development team meets with their customer multiple times throughout the capstone to understand customer needs and produce a working application that meets their requirements.
- The development team presents multiple demos of their application to their customer for feedback and approval.



"I wanted more out of my career. **I felt unfulfilled and that I was capable of much more than my job asked of me.** I have never experienced such an amazing learning environment like when I was at Tech Elevator."

–**Caitlin**, PGH Fall 2019,  
Now a developer at CGI



## Meet a Few Tech Elevator Instructors

At Tech Elevator, our instructors are accomplished software developers that have a passion for sharing their knowledge and expertise with our students. We believe that a great mentor can be the catalyst for successful transformation. As such, our instructors are at the heart of the Tech Elevator experience. To the right, meet just a few Tech Elevator instructors and learn about their backgrounds in tech.



**Tom Medvitz:** Tom has more than 20 years of in-the-field programming experience. He served as a Senior Software Automation Engineer for Nike, a Director of Analytics for Earth Fare, a Senior Strategy Marketing Analyst for FedEx, among other roles.



**Tori Brenneison:** “Code-mom,” Tori served as a developer at Hyland, OnShift and Harley-Davidson Motor Company before becoming a Tech Elevator instructor. You might see her speaking at local and regional events (like CodeMash!) or you can catch her latest insights on her blog at <https://codemom.net/>.



**Myron Law:** Myron enjoys helping others expand professionally as they make the important career and life-changing transition into the field of software development. Prior to joining Tech Elevator, he served as VP of Software Development at Police and Fire Federal Credit Union. Before that, he was a Senior Developer at Genomind.



**Andy Chong Sam:** National Live Remote instructor, Andy was a fintech software engineer at Ford Credit for nine years before coming to Tech Elevator. He also served as an analyst consultant for Accenture.







# Program Options: Designed to Fit Your Lifestyle

Tech Elevator offers various bootcamp modalities to fit best with your learning style and lifestyle. All programs leverage the same industry-leading technical curriculum and career prep Pathway Program. Explore the options below.



## Full-Time, On Campus:





Join a Tech Elevator campus community and become a software developer with meaningful, lifelong peer connections in 14 weeks (Monday-Friday, regular working hours). On-campus students say *they're energized working side-by-side with peers and appreciate more opportunities to meet and engage with local alumni, mentors and employers in-person*. They enjoy access to a dedicated space for self study and group projects, and they're motivated by the discipline of a full-day schedule in a distraction-free environment

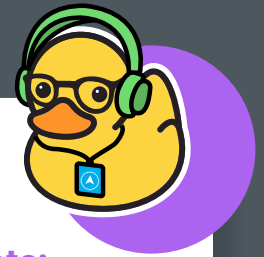
-  Daily, in-person lectures
-  Group work and peer-to-peer learning
-  In-person and one-on-one support
-  Face-to-face career coaching



## Full-Time, Live Remote:





Experience the highest-quality learn to code and career prep experience in a virtual classroom model spanning 14 weeks (Monday-Friday, regular working hours). *Online students say they value the flexibility to learn anywhere, anytime, while maintaining connections with peers. Best-in-class technology, like Tech Elevator's online learning platform, plus video conferencing, Zoom and Slack mirror real-world remote and hybrid workplaces.*

-  Daily lectures, live online
-  Group work through video conferencing and messaging tools
-  One-on-one support with staff through video conferencing
-  Virtual career prep



## Part-Time, Live Remote:

Tech Elevator has adapted its best-in-class curriculum to a part-time offering - *providing a flexible and achievable path to a rewarding career in tech for working adults* in just 30 weeks (roughly 20 hours/week).

-  Flexible schedule and work-life balance
-  Self student with hands-on reinforcement
-  Group work through video conferencing and messaging tools
-  Personal career coaching (virtual)
-  Instructor-led sessions for two hours weekly based on what works for you—Monday & Wednesday from 6-8 p.m. EST or Tuesday & Thursday from 6-8 p.m. EST or Saturday from 9-1 p.m. EST



## An Example of a Full-Time Week at Tech Elevator

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		<b>6 - 8AM</b> Workout		<b>6 - 8AM</b> Workout		<b>7:30 - 9AM</b> Workout
	<b>9AM-12PM</b> Attend Lecture	<b>9AM-12PM</b> Attend Lecture	<b>9AM-12PM</b> Attend Lecture	<b>9AM-12PM</b> Attend Lecture	<b>9AM-12PM</b> Review and Workshop	
<b>10AM -Noon</b> Brunch w/ Friends						
<b>12-6:30PM</b> Family Time	<b>1-2PM</b> Pathway Program	<b>1-2PM</b> Pathway Program	<b>1-2PM</b> Pathway Program	<b>1-2PM</b> Pathway Program	<b>1-2PM</b> Pathway Program	
	<b>2-5PM</b> Homework	<b>2-5PM</b> Code Review with Instructor	<b>2-5PM</b> Homework or Pair Programming	<b>2-5PM</b> Code Review with Instructor	<b>2-5PM</b> Homework	
		<b>5-6:30PM</b> Happy Hour	<b>5 - 6PM</b> Family Time	<b>5 - 6:30PM</b> Family Time		
		<b>6:30-7:30 PM</b> Household Errands	<b>6:30-7:30 PM</b> Self-study & Homework		<b>6:30-7:30 PM</b> Dinner with Friend	

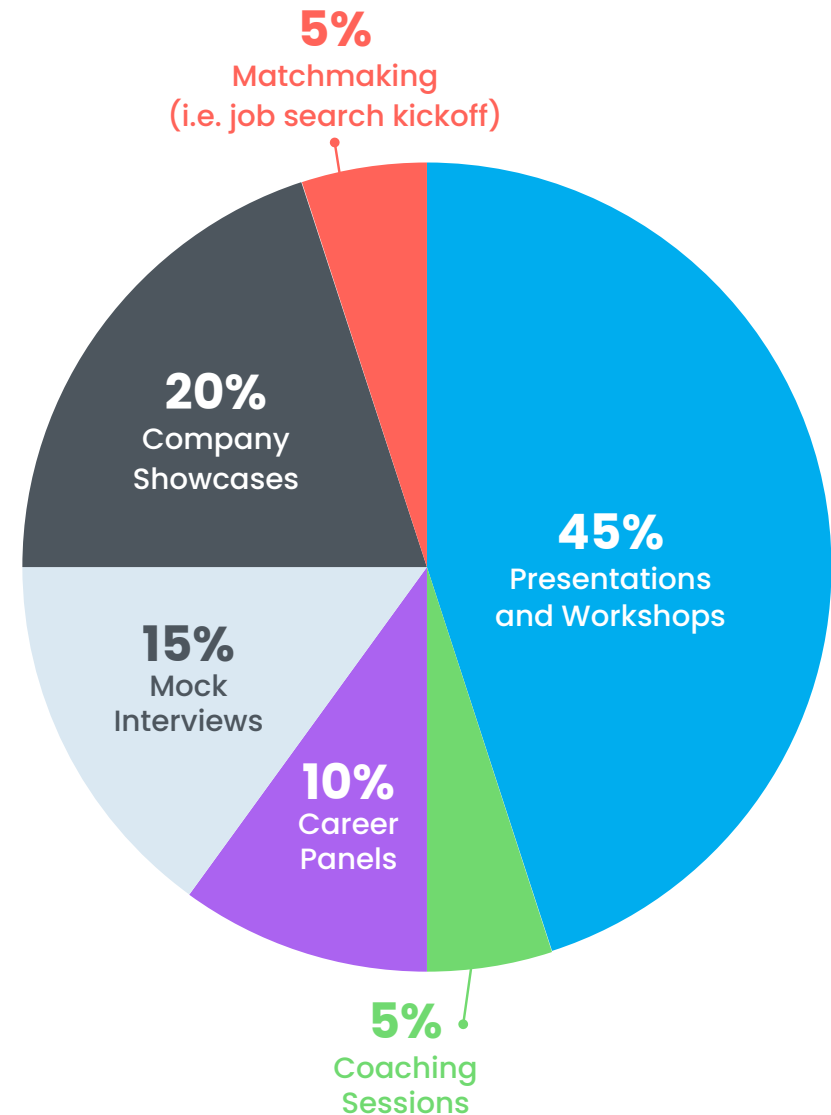


## Pathway Program Curriculum Overview

Finding a job is a job in itself. That's why we developed the Pathway Program.

Tech Elevator provides career readiness coaching and training as well as job search assistance as part of the Pathway Program™. The Pathway Program™ runs in parallel with the technical training program and helps students identify what career paths provide the best fit for their skills and experience and prepares them for the job search process. The Pathway Program™ is included in the total cost of the bootcamp.

### WHAT TO EXPECT IN PATHWAY



Keep reading to explore the Pathway Program curriculum





# Presentations and Workshops

During the course of the program, Pathway Directors will conduct various presentations and workshops with students to prepare them for their job search near the end of the cohort as well as their new careers in the IT industry. While most of these sessions are mandatory as part of the program, there are a handful of them that are optional for students. To the side is a list of all sessions conducted during the 14-week cohort.



## Pathway Orientation and Clifton StrengthsFinder Introduction

Introduces students to the Pathway Program™ and allows Pathway Directors to set expectations for students during the next 14-weeks of the career development program. Additionally, we'll introduce the students to Clifton StrengthsFinder - a personality assessment that provides students with their top 5 strengths (students take this assessment during their 1st week at Tech Elevator), and talk with students about how we incorporate their StrengthsFinder results into different aspects of the Pathway Program™.



## Elevator Pitch Presentation and Workshop

During this session, students learn how to craft the perfect elevator pitch and how to nail their response to the "tell me about yourself" question. An additional session will focus on how to talk about strengths and transferrable skills. Students will also have the opportunity to use AI templates to build out a resume that reflects their transferrable skills, which will be reviewed by Pathway Directors.



## Busting through the Bootcamp Blues

We'll talk with students about best practices for coping with the stress and anxiety that comes with going through this program. Additionally, we'll also have several hands-on stress busters and will incorporate some fun icebreakers.



## Resume Presentation and Workshop

During this session, we cover best practices for creating a resume - whether this is the first time a student has created a resume, or if they just need work on tailoring their resume to the IT industry. Later in the week, we'll have a hands-on workshop where students will receive specific feedback from their Pathway Program Director on their first draft of their resume. We even have a ChatGPT Powered Career Platform called Hiration that helps students build the best resume to beat an applicant tracking system.



## Side Project Presentation

Our dedicated team of instructors will go over the best practices for creating side projects and talk through some ideas of how students can get started.





# Presentations and Workshops



## LinkedIn Presentation and Workshop

We will go through steps to building a successful LinkedIn profile and maximizing the power of your network; plus we'll talk about best practices for utilizing LinkedIn as student's get ready for their job search.



## Networking Presentation and Workshop

We'll discuss the Who, What, When, Where and Why around networking; plus we have an interactive activity for students to put their networking skills to the test.



## Technical Roles Presentation

Our dedicated team of instructors will discuss the various roles that the IT industry has to offer (beyond Software Development); this is a great opportunity for students to not only learn about roles they could end up in, but also about the various roles they'll be working with as a Software Developer.



## Working with Recruiters Presentation

Students learn about the different employment possibilities for IT professionals as well as best practices for working w/recruiters from staffing agencies.



## Interviewing 101 Presentation

We'll take a deep dive into best practices and tips for HR and behavioral interviews as well as what students can expect during virtual interviews as well as phone screens.



## Career Strategy Workshop

We'll talk about goal setting, and practical ways to approach a job search in a strategic way. During the workshop, you'll also gain insights into networking strategies and interview techniques to enhance your career prospects.





# Presentations and Workshops



## Technical Interviewing Presentation

Our dedicated team of instructors will introduce students to expectations for technical interviews - how to prepare, what to expect, and best practices for whiteboard during interviews.



## Job Search Expectations Presentation

During week 10 of the program, we officially kick-off the job search with students - we'll cover best practices as students begin applying to jobs, networking and following up with companies.



## Job Fishing Workshop Presentation

An interactive workshop where our Pathway team teaches our students how to 'fish' for a job and best practices for following up on job applications.



## Benefits 101 Presentation

Tech Elevator leads a presentation on what students can expect from a benefits package once they accept an offer.



## Alumni Mentorship Night

During this session, our alumni from previous cohorts serve as mentors to our current students and conduct whiteboard sessions, mock interviews, code reviews, and more. Additionally, students have an opportunity to network with alumni and ask them questions about their experiences both at Tech Elevator and in their first roles.



## 1x1 Career Coaching Sessions



### 1x1 Career Coaching Session

Students have one mandatory session with their Pathway Program™ Director during the 14-week cohort; however, their Pathway Director will have open office hours should students need to talk one-on-one. During these sessions, the Pathway Director will become familiar with each student as well as their personal career goals.

## Career Panels

During the 14-week cohort, we'll host four career panels for students. Each panel has a different 'theme', but all are designed to provide students with an inside look from industry professionals on what it is like to work in IT.



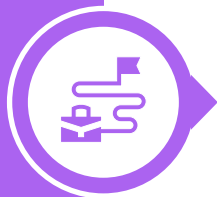
### Alumni Panel

4-5 alumni discuss their experiences with students on what it was like going through the bootcamp as well what life is now like in their first IT roles.



### Lessons I Learned in my IT Career

4-5 developers from the area talk with students about best practices for working in the IT field as well as share advice as students begin their careers as developers.



### Career Paths in Technology

4-5 IT professionals in non-developer roles discuss their roles and how they work with developers



### Interview like a Pro

HR and IT managers discuss best practices and advice with students when it comes to interviewing for IT roles.



## Mock Interviews



We host 4 weeks of back to back mock interviews (both HR and technical) to prepare students for all the interviews they'll go through as they inch closer to their first jobs in tech. We bring in volunteers from the area for two of the sessions and have our Tech Elevator team members run the other two sessions.

- HR Mock Interviews with Recruiters or Hiration tool
- Behavioral Group Mock Interviews with Pathway Director
- Technical Mock Interviews with Instructors
- Technical Mock Interviews powered by Hiration

## Company Showcases



These informal company introductions occur remotely and give companies the opportunity to talk with our students about who you are, what you do, and why students might want to work there (either now or in the future). Companies must be actively hiring to present a showcase. These sessions are also opportunities for employers to educate our students on their industries and what it's like to work as a developer in their type of organization and sector.

## Matchmaking



We believe in making things easy when it comes to connecting great employers with great employees. For that reason, we created our matchmaking process to give you the opportunity to efficiently meet multiple qualified candidates at the same time and in one place. Essentially it's speed dating to help students and companies find the perfect match. Keep in mind, this is part of the job search kickoff and does not replace a student's full job search. The number of interviews secured will depend on location and job market.



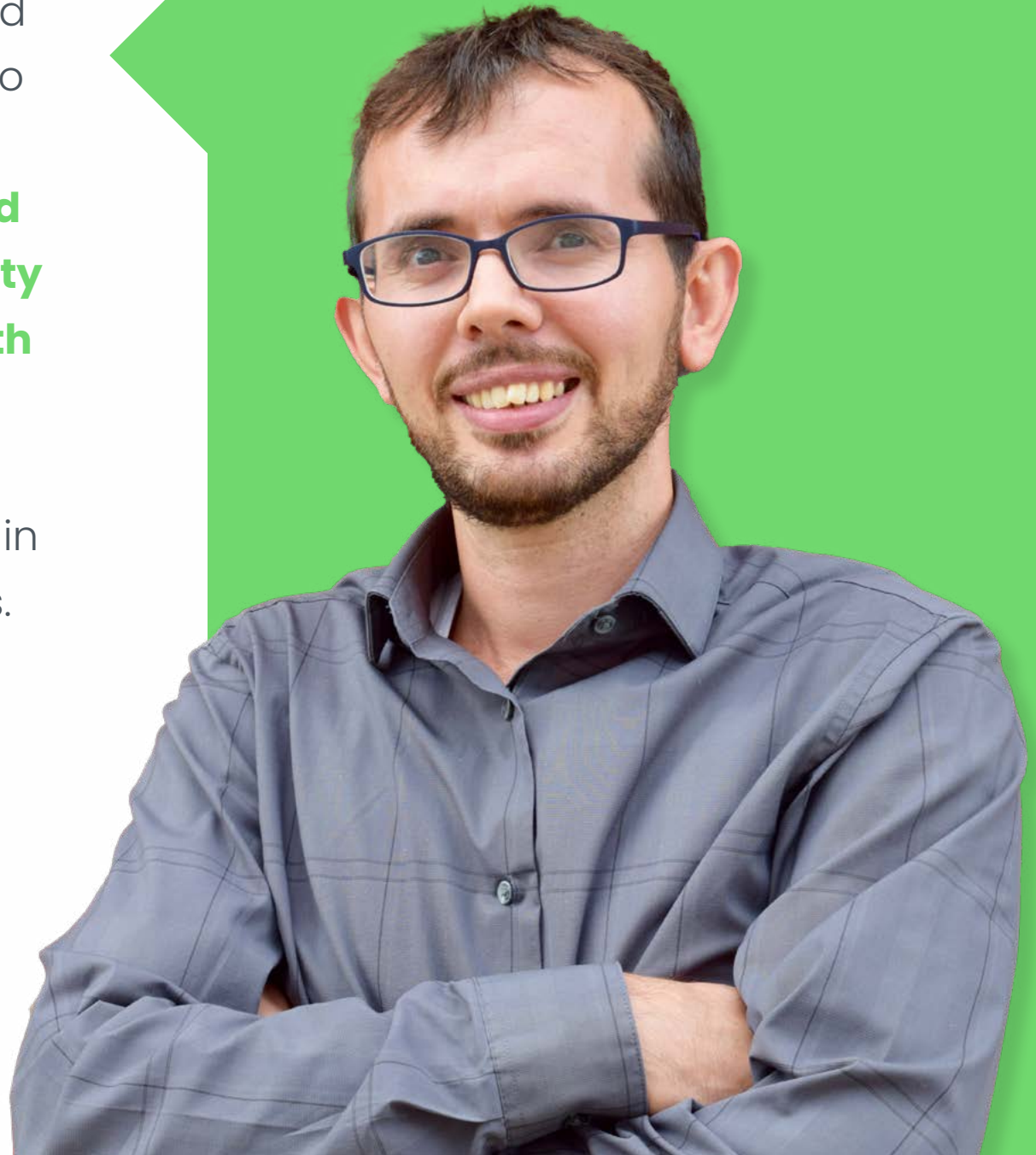
"Tech Elevator not only helped me change my career, it also helped me change my life.

**A career in tech has allowed me to have financial stability and more time to spend with my growing family.** Unlike

other coding bootcamps, TE offers hands-on experience in both technical and soft skills.

Their Pathway Program truly prepares you for jobs and interviews. It was a priceless experience."

**-Isa,** Math Teacher  
to Junior Developer,  
Fall 2018 CLE grad





## How to Pay: Financing Options

Our tuition is \$16,500 with various financing and scholarship options. Continue reading as we outline various financing options for enrolled students. Keep in mind, the availability of our financing options listed below is dependent on the campus location and program type.

## REPRESENT Tech

**Represent Tech Scholarship:** We believe that the natural aptitude for learning to code is distributed evenly throughout the population, but access to opportunity is not.

We're proud to offer scholarships to historically underrepresented groups creating greater accessibility to careers in technology. For the purpose of the coding bootcamp scholarship, Tech Elevator currently defines underrepresented personas as anyone who self-identifies with any of the following qualifiers:

**Racial or Ethnic Identities:** Black/  
African American, Hispanic/Latino, or  
Native American/American Indian

**Gender Identification:**  
Female, Transgender, Non-Binary

**Scholarship amount:**  
**\$13,175**

Covers a Majority of Tuition Costs



**Financing:** Low payments averaging \$338 per month make Tech Elevator a smart option for many students looking to build skills then reach their full potential in a new higher paying position. We offer options from Sallie Mae and Ascent to finance your loans over time.

[Explore financing options.](#)



**Workforce Innovation and Opportunity Act:** Receive local grants to support your education. In partnership with local workforce development boards, Tech Elevator is an Eligible Training Provider in the states of Ohio, Michigan and Pennsylvania underneath the Workforce Innovation & Opportunity Act, which authorizes and funds employment and training programs in the United States. [Explore grant options.](#)

**Income Share Agreement (ISA):** With the Stride Funding & Tech Elevator Income Share Agreement (ISA), you pay a \$2,000 deposit and then \$0 in tuition until you're hired and earning at least \$40,000 per year. [Explore ISA details.](#)

**Veterans Benefits:** Veterans Benefits: The Veterans Benefits Administration (VBA), underneath the U.S. Dept. of Veterans Affairs (DVA, or simply VA), offers a wide variety of education and training benefits to veterans, in the form of both the [GI Bill®](#) and [Vet Tec](#) benefits. If you're a veteran, you could qualify for [GI Bill](#) or [Vet Tec](#) benefits to help pay for tuition.



## How to Get Started

Start your career transformation today by taking our free, predictive Aptitude Test and see if you're a fit for the program. We've developed our test using data from over 1000 students and through contributions from industrial psychologists and experts in the field of education. Our questions are designed to ensure that the test measures an applicant's aptitude rather than their test-taking ability or educational background.

### Our Admissions Process:

1

#### Take the Aptitude Test

No coding required. Test your aptitude to become a software developer.

2

#### Apply

Fill out an application and tell us all about you, including your career goals and aspirations.

3

#### Schedule an Interview

You have an interview with an admissions team member who will answer all your questions and help with your applications process.

4

#### Enroll

Determine your financing package, place a deposit and save your seat for your cohort of choice!

**Get started today!**

[Learn More](#)

## Have questions in the meantime?

Contact us at [admissions@techelevator.com](mailto:admissions@techelevator.com). We hope to see you in class!

[Contact Us](#)