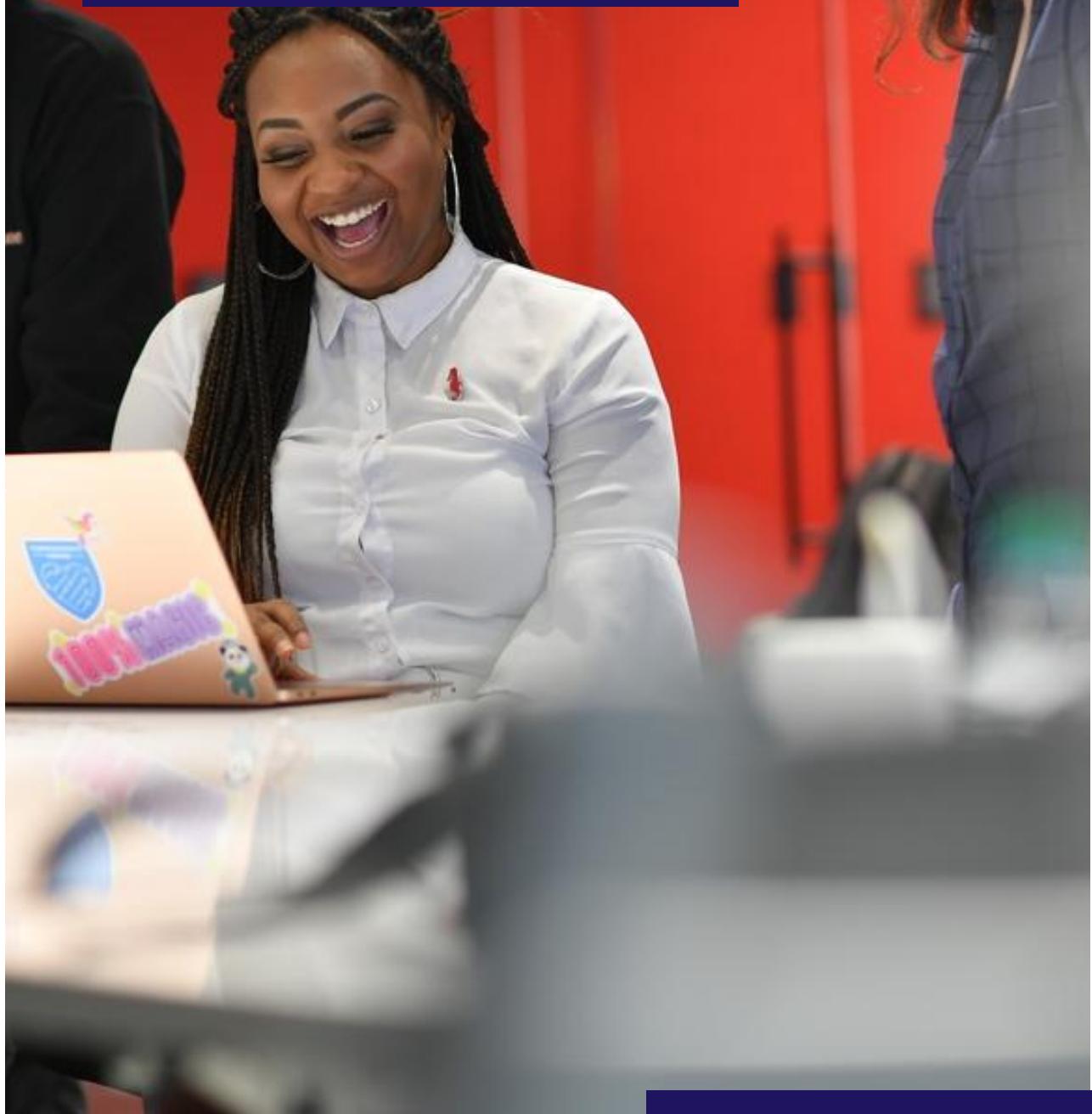


Foundations of Computer Science and Augmented Reality & Virtual Reality

18-month Program



Become a Software Engineer - For real

Our intensive program will first introduce you to the foundations of computer science and software engineering, then specialize in what drives you.

The first three sprints of our program covers the foundations of computer science and software engineering, including Linux, data structures, algorithms, low-level programming languages, high-level modern languages, databases, APIs, and DevOps.

Then, the last sprint you choose the specialization that is right for you:

- Back-end Web Development
- Front-end Web Development
- Devops



What to Expect

1) No pre-course

Holberton does not expect students to come in with previous software engineering experience (although if you do have experience, that's awesome too).

There is no **pre-course work** (that's why you are attending a school after all), but we do recommend that you read through The C Programming Language book by Kernighan and Ritchie or Programming in C by Stephen Kochan.

The goal of reading through the book is not to deeply understand all the concepts, but to familiarize yourself with key terminology and content.

2) Coursework

We are training you to be a full-stack software engineers in 12 months. The program will be intense.

There are no formal teachers or formal lectures. Students are learning by creating and we rely on peer-learning, collaboration, and industry-relevant curriculum to guide the way.

There is no competition here at Holberton, rather students are helping each other towards their goals. Of course, there is also technical staff available to answer questions and extend support.



3) Professional development

We know that the skills to get a job are different from the skills to be good at a job. From week zero, we immerse students in professional growth and development via workshops, projects, meetups, and work simulations.

Whiteboarding, mock interviews, professional networking, and more begin as soon as students start the program so that they're confident and competent when the time comes to prove they're ready for the job.

4) Soft Skills

In today's tech world, it's not enough to be good at technical skills, you need to be a clear communicator as well.

We push our students to work on their public speaking skills, to publish blog posts to online tech communities and publications, and to speak at conferences and meetups.

This not only prepares students to be team players and clear communicators, but creates amazing networking opportunities.

5) Included in All Holberton Sprints



Technical writing

Technical writing is an invaluable skill and an excellent way to articulate and share your knowledge.



Collaboration

Collaboration is key to successful business. You will learn project management, interpersonal communication, and team collaboration skills.



The Framework

The Framework provides the structure, order, and balance necessary to maintain a productive peer learning environment and will help you succeed throughout your career.



Whiteboarding

Whiteboarding is an essential skill in the tech industry, both for effective planning and for excelling in tech interviews.



Mock Interviews

It is not enough for you to know the answers to the questions; you need to be able to clearly communicate your thought processes and understanding.



What You'll Learn

Foundation of Software and Engineering

This foundational knowledge of how computers and programming languages work will allow you to optimize and debug anything later on in your professional career. You will also begin working with algorithms and data structures which are essential foundations for great Software Engineers - the type that the best companies hire.

In the first sprint of foundations, you'll work in C and Unix programming, graphical programming, data structures, assembly language, and algorithms as well as reverse engineering and security protocols.

From there, you are introduced to higher-level languages, increasingly advanced algorithms, space and time complexity, database management, and front-end programming. Using the latest technologies, you will begin to create a complete web application project that will span the rest of the foundation sprints.

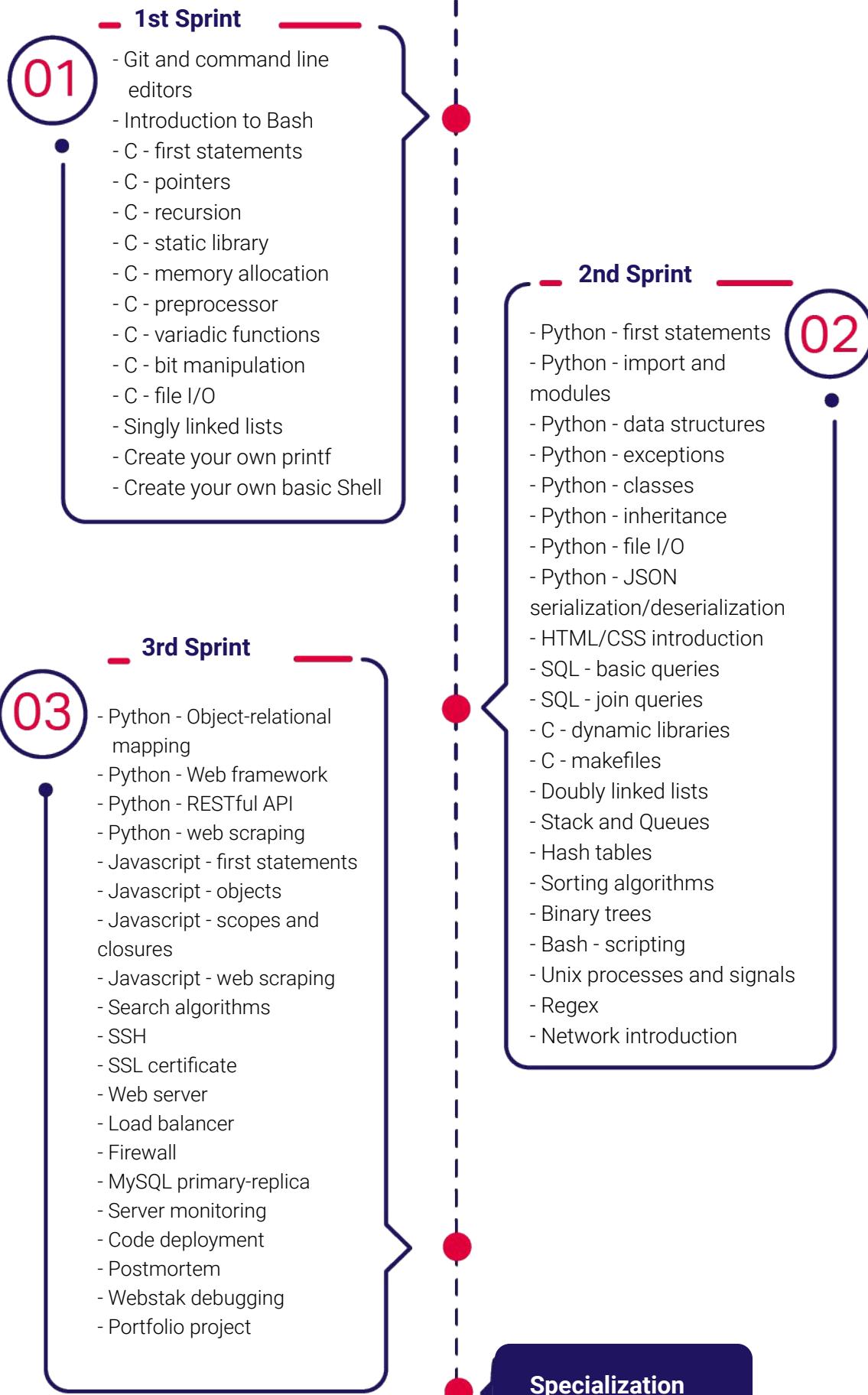
The final sprint of foundations emphasizes automation, scalability, and reliability, so that you are familiar with the infrastructure and best practices similar to those in tech powerhouses. Alongside a continuation in web development, you'll also advance in algorithmic understanding, technical writing, debugging, and project management.

Examples of Projects

- Write your own printf function
- Web stack debugging
- Build a video game
- Clone a marketplace
- Code your own shell



Curriculum Foundation of Computer Science & Software Engineering



The application Process

Our selection process is based only on talent and motivation. We don't care what degrees you may or may not have, if you have any previous programming experience, or your ability to pay. If you possess curiosity, determination, and drive to succeed, then we want you as a Holberton student.

Our automated admissions process aims to remove human biases. It was created specifically to identify smart, motivated people and doesn't take into account previous education, work experience, gender, ethnicity, or age. There's also no cost to apply. — the only requirements are you must be 18 years old and have a GED or high school diploma.

Start Today With \$0 Upfront

At Holberton, we believe that people from every community and background should have the opportunity to become a software engineer. That is why we offer an Income Share Agreement option to help make your new career more accessible.

[Learn more](#)



Contact us

Connect with your local campus. Check out our [**Locations**](#) page to find contact information and explore events, workshops, and networking opportunities in your city.

