App Academy

SWE Campus Hybrid Overview

Agenda

- The Outcome
- About Us
- Introductions
- The Curriculum
- The Design
- What to Expect
- Welcome to the Family

The Outcome

You will be a new type of bootcamp graduate to the industry: a more capable junior programmer, a wiser team collaborator, and an agent of higher productivity.

A strong software engineer.

You will have a heightened appeal to new economy software companies.

You will equally contend with four-year school applicants for positions at enterprise companies.

You will have the ability to succeed at companies of all sizes. Graduates have gone to work at big tech and early stage startups alike.

You will have the confidence of knowing that you have learned how to learn, and have the ability to keep learning to ensure a long and interesting career.

About Us

Our Passion

We are in the business of helping people change their lives. We can't imagine a better business to be in.

We love the feeling of helping you succeed.

That doesn't mean that this will be all fun and games. It will be tough. We will be tough. We do our best to strike the balance.

Our Evolution

2013

(We were engineers and made it up as we went)

+

Learning Taxonomies
Cognitive Psychology
Knowledge Trees
Durable Memory
Lots of Experiments

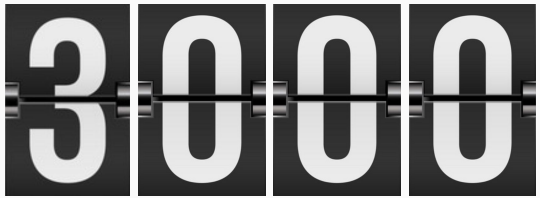
=

2020

(We're still engineers, but now also world class educators)

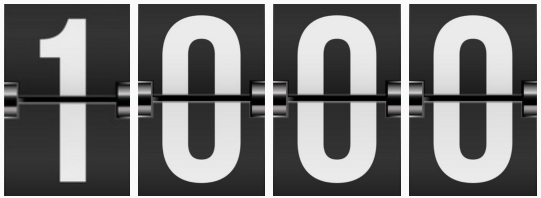
The Feedback Loop

We keep learning every day from our graduates and the employers who hire them. Our curriculum and instructional design is kept current with their help.



Graduates
(and counting)

placed at



Employers
(and counting)

Introductions

Instructional Team Introductions

- Name
- What you were doing before a/A
- Gender pronouns
  - he/him/his
  - she/her/hers
  - they/them/theirs

The Curriculum

You're going to learn "Full Stack Web Development."

That means:

- Becoming proficient in languages that drive the modern Internet: Ruby, SQL, JavaScript, HTML, and CSS.
- Using state-of-the-art tools and web frameworks like ReactJS, Redux, Rails, Express, and Node.js.

But wait, there's more...

That means:

- Building Web-scale applications from scratch.
- Working as a highly-dynamic Agile-based team to build complex applications that you can add to your portfolio
- Becoming a software developer that companies want to hire.

Why Full Stack?

Companies now demand “Full Stack” developers that know the technology tools for everything from pulling data from where it lives, transforming and enriching it through software, and finally showing it on the screen so real people can make decisions and take actions.

That means that modern software developers need to know languages for databases, application servers, browsers, and more.

Why Computer Science?

Computer science refers to deep understanding of mathematically proven solutions to fundamental problems. Knowledge of algorithms, data structures, and the components of networking and computing empower our graduates to efficiently identify and solve problems.

Additionally, these concepts are the keystones of many interviews. The computer science fundamentals you learn here will make you a better programmer and a stronger candidate for your first job.

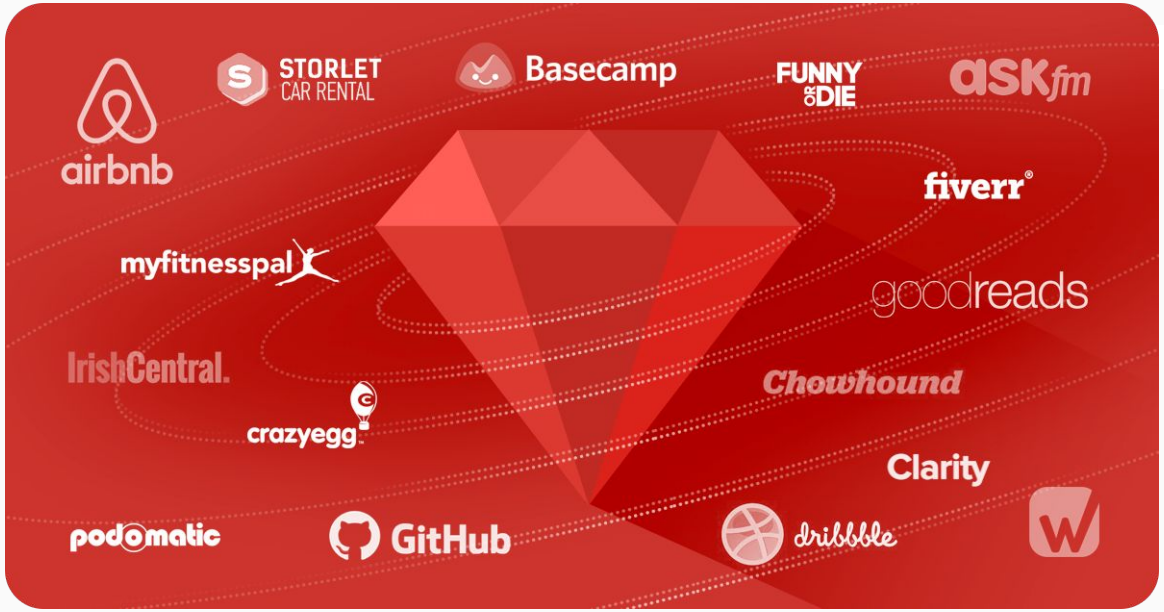
Why Ruby?

All software development is based on essential fundamental programming principles that are agnostic of language. Ruby is a robust and flexible programming language who's ease of use allows you to focus on those principles to become a confident programmer.

Ruby also powers Rails: a Full Stack web application framework that allows for rapid and reliable development of applications - the perfect tool for learning and building at the same time.

Why Ruby?

Ruby powers applications in diverse domains.



Why JavaScript?

JavaScript is *THE* de facto language for modern Web programming now, and for the foreseeable future.

The Modules, Weeks, and Topics

Foundations	Ruby	SQL + ORMs	Rails	Javascript	React	Full Stack	Career Quest
1 - 2	3 - 4	5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 16
Programming Fundamentals	Computer Science	Back-End Fundamentals	Full Stack Engineering	Front-End Fundamentals	Modern UIs	First Portfolio Project	Job-Search Prep

The Modules

Module		Summary	Language	Idea	Framework	Tool
Foundations		Master the underlying principles of your new craft through writing, organizing, and maintaining your source code as you would in a real-world job setting.	Ruby	Programming Fundamentals		Command line
Ruby		Extend your programming knowledge with efficient ways to store and search for data. Use Object Oriented Programming (OOP) and the science of Abstract Data Types to efficiently solve problems.	Ruby	Object, Oriented Programming, Sorting algorithms, Data structures		Pry
SQL & ORMs		Learn to communicate with and store data in databases using SQL (sequence query language) and connect those databases to web applications.	SQL, Ruby	Databases, Object Relational Mapping	ActiveRecord	PostgreSQL

The Modules

Module		Summary	Language	Idea	Framework	Tool
Rails		Learn Full Stack web application development with the Rails framework. Understand the Model View Controller (MVC) pattern of software design and learn to build user authentication from scratch.	Ruby, SQL, HTML, CSS	Model-View-Controller, HTTP Request/Response Cycle	Rails	Rails, Rails Server, Capybara
Javascript		Use all the programming knowledge you've learned to solve problems in a new language. Learn about asynchronicity and how to manipulate the browser using Javascript.	Javascript	Object Oriented Programming, Asynchronicity, Functions		Node.js, Browser, jQuery

The Modules

Module		Summary	Language	Idea	Framework	Tool
React		Use your new Javascript language skills to build modern, reactive, user interfaces with React - one of the leading modern Frontend web application frameworks.	Javascript	Flux Architecture, Higher Order Functions, Reactive Design	React	Redux
Full Stack Project		Take all of the skills and tools you have learned to build your very first Ruby on Rails + React Full Stack Web Application	Ruby, SQL, Javascript	Full Stack Web Application Design	Rails, React	PostgreSQL, Active Record, Redux, jQuery, Heroku
Career Quest		Create a full software developer portfolio including 2 more projects, a resume, a cover letter template, and a personal pitch. Study whiteboarding, problem solving, and algorithms to prepare for job interviews	Ruby, SQL, Javascript	Preparing for the Job Search. Data Structures and Algorithms, Career Readiness	Express.js, D3.js	MongoDB

Cohort Resources

Cohort Resources contains a wealth of information that will be relevant throughout your time going through the curriculum. It will include the following:

- Cohort calendar (specific to your cohort)
- Lecture slides and demos (placed there post-lecture for reference)
- Tips for Success
- Additional resources targeted at difficult topics

Cohort Resources Main Repo

The Design

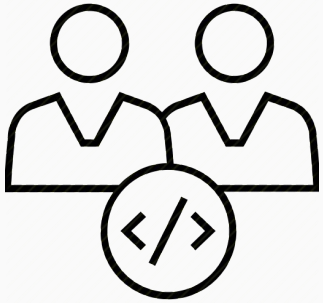
Lectures and Q&A

Every morning, you and your cohort-mates will start with a lecture on the day's subjects.

The lecture will be given either live, or via video with live Q&A periods between the videos.

These lectures are your opportunity to absorb the necessary concepts and tools that you will later put into practice.

Projects and Pair Programming



In the afternoon, you will pair-up with a cohort-mate and pair program - work on practical projects that drive home the concepts from the morning's lecture.

Working with others is a regular part of software development. Learning to communicate with and adapt to different people on projects is essential.

This type of collaboration makes us better problem solvers, better learners, and, ultimately, better candidates for roles in software engineering.

Flex Time

You spent the day working through different projects to master key concepts.

Now, reflect on what you just accomplished by talking about it with your classmates in a group setting.

Share what you did during the day. Find out how others did things differently. Gain a wider perspective on the material by synthesizing experiences with your classmates.

Portfolio Projects

These projects give you the opportunity to apply your skills in ways similar in scale and scope to what you'll find in your first job as a programmer.

Most importantly, these projects are what will GET YOU A JOB!

This course contains three portfolio projects:

- The Full Stack Project
- The MERN Stack Project
- The JavaScript Project

Assessments

Assessments are designed to test and ensure the mastery of knowledge needed to continue on in the course.

Because every concept taught at App Academy is the foundation of every subsequent concept, demonstrable understanding is essential.

There are two types of Assessments at App Academy

Assessments

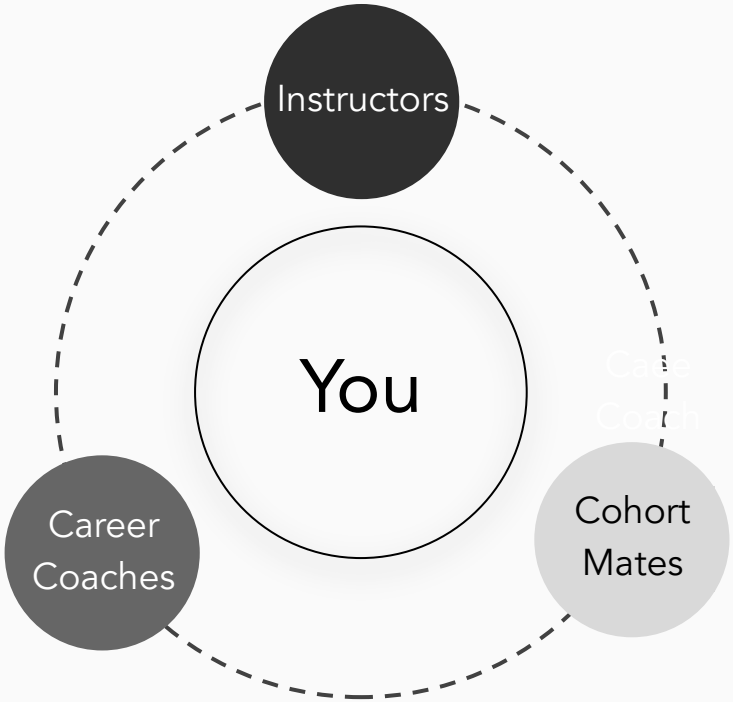
Foundations Assessments

- Your first two assessments
- Designed to test your mastery of fundamental programming skills necessary for the rest of the course

Academic Assessments

- 6 Assessments based on each module of content
- Designed to test your mastery of each module - essential for being able to continue in the course

Your Support Team



We surround you with a passionate team focused on your success, supporting you every step of the way.

Your pairs (cohort-mates) round-out the team.

Your Support Team

- Instructor
  - A top graduate of our program
  - Daily support from someone who has walked in your shoes

- Career Coach
  - Experienced career advisor
  - Will meet with you throughout your job search

Your Support Team

You'll notice that we'll sometimes bring in new teammates or rotate teammates. This could be to offer additional help, leverage a teammates subject matter expertise, or simply because of vacation or illness.

We always do this to protect and/or improve your cohort dynamic.

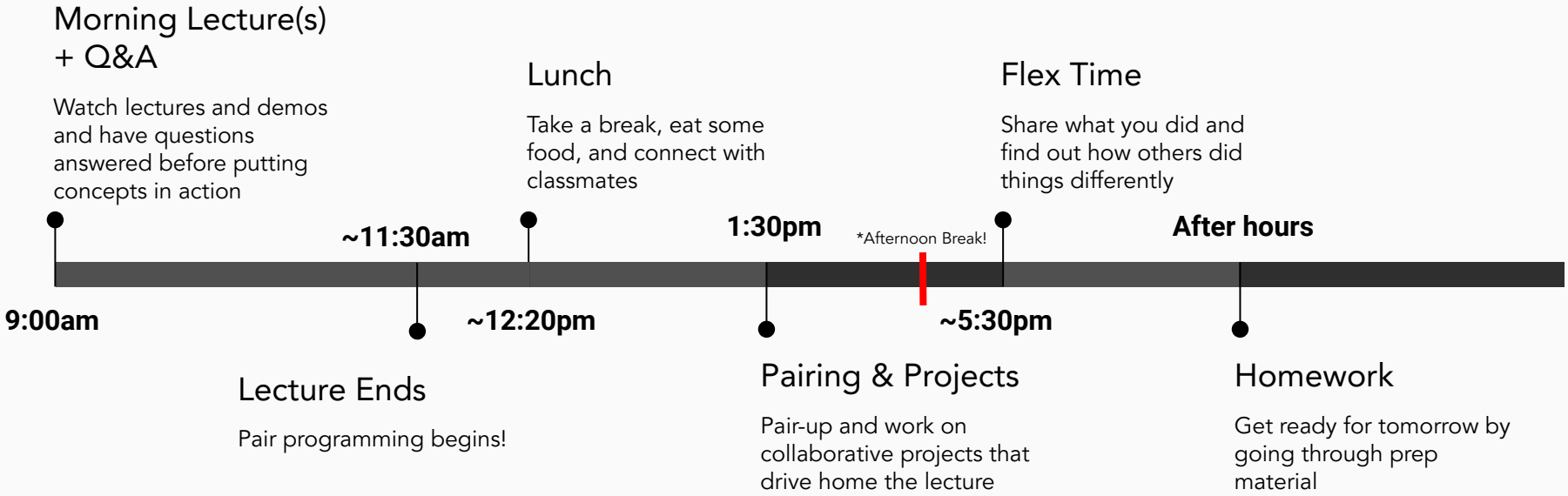
Student Resource Groups (SRG's)

- WTGNC
- LGBTQ+
- a/A Parents
- Students with Disabilities
- Black, Indiginous, and Latinx
- Asian

More info to come on these after Week 2

What to Expect

Daily Schedule



All times PST

Daily Logistics

- When is attendance taken:
  - 9am PST
  - 1:30pm PST
  - 4:00 pm PST
- Breaks:
  - 12:20 - 1:30pm PST
  - 3:40 - 4:00pm PST

App Academy Open

open.appacademy.io

- Modules
- Tasks/Days
- Within Days:
  - Materials
  - Additional Resources
  - Homeworks
  - Projects
  - Bonus Projects

Strikes

- A strike is an indicator of work missed and we use them to record time away from the learning environment
- Strikes are also a foundation of accountability for you to this program
- The strike limit for this course is 10
- Top reasons for getting strikes:
  - Missing check-in
  - Not communicating about missing check-in
  - Not filling out nightly report
  - Having phone out during lecture/pairing time
  - Being disruptive or unaccountable to your pair for the day

Progress Tracker (PT)

progress.appacademy.io

- Asking questions
- Filling out nightly reports
- Checking your stats

Communications

- Extremely important
- Slack
- Google Group

Bootcamp life is intense, but things come up (it's life). Be communicative, stay in touch, and everything will be good.

Assessment Expectations

- 8 total assessments administered throughout the curriculum
  - 2 Foundations Assessments
  - 6 Academic Assessments
- You are allowed to fail any of the two foundations assessments 1 time
  - After the first fail, you will be deferred to the next cohort
  - This is your chance to really prepare for the challenge of App Academy
  - If you fail another Foundations Assessment, you will be dismissed from App Academy - our program just isn't right for you.

Assessment Expectations

- You are allowed 1 fail of any 1 Academic Assessment with no change in your standing within the course
- If you fail a second Academic Assessment, you will be given a re-take of that assessment that same day in the afternoon
  - This is your opportunity to show the fail was a fluke
- If you fail the retake, you will be dismissed from App Academy
  - This program is not right for you
- If you pass the re-take, you will stay in the course
- If you fail one more assessment, you will be dismissed from App Academy

Portfolio Project Expectations

Portfolio Projects are not only an excellent and intentional tool to reinforce your learning, they are the single most important piece of your job search readiness.

You transition from 80+ hours a week of studying to 80+ hours a week building.

Your projects show future employers you have the skills they need.

Your job search can only start when your portfolio projects are completed to a certain degree and deemed ready!

Portfolio Project Expectations

- All three projects will require a minimum level of completion by graduation
- Completion will be determined by your Instructors and your Career Coaches
- You will showcase your projects to other students
- Your projects will be hard, but, when we get there, you will be ready

Weekly Surveys

We will administer weekly surveys for you to anonymously give feedback on multiple aspects of the course, your experience, and advice for us on how we can do things better.

Bootcamp Life

- Can be frustrating and overwhelming
  - Will likely make you uncomfortable
  - Get comfortable with being uncomfortable
- We're all in this together
  - Lean on each other, ask each other for help
- This is your journey to become a software developer
  - We are here to support you on that journey as much as we can
  - Your hard work will define your success
- We can do it! You can do it! You are doing it!

Welcome to the Family

Welcome

You now join a cohort of classmates who are as motivated as you are to start a journey to become a strong software engineer.

We welcome you and your cohort into the App Academy family!