

# **Instructor Kickoff**

Welcome to Flatiron School!

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# Agenda

- Warm-up & Introductions
- Your Support Team
- Program Tools
- Program Structure & Schedule
- Setting Yourself Up For Success

# Warm-up

- Introduce yourself:
  - Name
  - Pronouns
  - Where you are located
- Share a book, podcast, movie, or TV show you've enjoyed recently.

# **Your Support Team**

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# I'm your instructor 🖐️

## What I do:

- Conduct sessions on core curriculum
- Administer and grade assessments
- Deliver feedback on coursework and progress

**Daniel  
Burdeno**

He/Him



# Your Support Teams



## Technical Support:

- **Instructors:** Deliver lectures, conduct assessments, and provide feedback on coursework and progress
- **Pair with a Technical Coach:** Support on labs and projects (nights and weekends only)

## Non-Technical Support:

- **Student Advisors:** One-on-one support during your program
- **Career Coaches:** One-on-one support after graduation
- **Community Team:** Slack channels, newsletters, and events to help you connect with others and build your network

# The Squad



**Angelica (Jelly)  
Spratley**



**Daniel  
Burdeno**



**Praveen  
Gowtham**



**Joseph  
Mata**



# Instructors and Technical Coaches

- Able to support during specified hours
  - Instructors = Work day
  - Technical Coach = Nights and weekends
- Exceptions include meetings, supporting events, lunch, and prep time.
- Instructional team will give you constructive feedback on code and professional skills.
  - They will not necessarily hand you the answer
    - but they'll guide you.





# Program Tools

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# Discord

Important channels to know:

#ds-ntl-040124

#all-about-data

#announcements

#events

## Reminders:

Update your server profile:

- Photo (optional!)
- First name and last name
- Get roles!

Complete your onboarding (visit [Server Guide](#))

Download the desktop app!



**Our Code of Conduct applies to Discord.** This is a part of our community but we can't be everywhere at once. Please let us know if you're ever uncomfortable with something that was said or the way something was said.

Flatiron School uses Canvas, a learning management system, to deliver our program and technical content.

# Homeroom Course

## General information, resources, and your calendar

## Phase Courses

## Lessons, labs, assessments, and blogs

DS-031521
Account Admin Dashboard Courses Calendar Inbox History Commons Canvas IT Support

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**Home**

Announcements

Attendance

Modules

People

Discussions

Pages

BigBlueButton

Syllabus

Quizzes

Outcomes

Rubrics

Files

Grades

Assignments

Collaborations

Item Banks

Settings

## Homeroom

# Welcome to your Flatiron School Homeroom Course!

We're excited to get started! This page will serve as your Home page throughout the course, and will always house your program calendar. Be sure to check in here early and often. **Please review your To-Do List** (located to the right of this text) and complete each item by its indicated due date.

In addition, please review your program details by clicking the "Modules" tab on the left and working through all of the lessons that appear. Please be sure that you've completed this work prior to your first day of class.

Import Existing

Import from

Choose Ho

View Cours

Course Set

New Anno

New Analy

View Cours

**Coming Up**

Nothing for the nex

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**Calendar**

17

## Program Calendar

Calendar items that appear in GREEN belong to your specific cohort calendar. These items include lectures, labs, and other mandatory class activities. Events that appear in PURPLE are optional community events that are open to all Flatiron School students (guest speakers, meetups, etc.).

We recommend that you click the "+ Google Calendar" button in the lower right corner to integrate this calendar with other calendars you use. You can also toggle to different views in the top left corner of the embedded calendar, to look at each week, each month, or day by day in the Agenda view.

**NYC-Mhntn-DS-031521**

Today

< January 2023 >

Print Week Month Agenda

Sun	Mon	Tue	Wed	Thu	Fri	Sat
Jan 1 <b>New Year's Day</b>	2 <b>New Year's Day</b> 10:45am Work on	3 10:45am Work on	4 10:45am Work on	5 10:45am Work on	6 10:45am Work on	7
	8 9am FLATIRON SC 10am Meditation I +3 more	9 2:30pm Work On ( 2:30pm Work On ( 2pm Science Fair 11am Graduation	10 2:30pm Work On ( 2:30pm Work On ( 2pm Science Fair 11am Graduation	11 2:30pm Work On ( 2:30pm Work On ( 2pm Science Fair 11am Graduation	12 2:30pm Work On ( 2:30pm Work On ( 2pm Science Fair 11am Graduation	13 2:30pm Work On ( 2:30pm Work On ( 2pm Science Fair 11am Graduation
	14 10am Meditation I 10:45am Work on	15 10:45am Work on	16 10:45am Work on	17 10:45am Work on	18 10:45am Work on	19

*FYI: Here's your calendar!*

# Pair with a Technical Coach

## What?

- General comprehension
- Technical support for platforms and applied learning tools
- Getting “unstuck” in labs
- Cannot help with anything assessment-related

## When?

Nights and weekends:

- Weekdays: 6pm - midnight ET
- Weekends: 9am - midnight ET

How? Zendesk chatbot in Canvas

The image shows a Canvas LMS interface. The main content area displays the course '2021-07-SENG-FLEX-PHASE-1' with a sidebar menu on the left containing links like Home, Announcements, Assignments, Discussions, Grades, People, Pages, Syllabus, Outcomes, Quizzes, Modules, BigBlueButton, Collaborations, Attendance, New Analytics, and Item Banks. The main content area shows a list of modules, including '[Flex Only] Prerequisite', '[Flex] Phase 1 Prerequisite', 'Welcome to Phase 1', and 'Phase 1 Syllabus: Flex Program .20 Week Pace'. A side chat window titled 'Pair with a TC' is open on the right. It contains a form with fields for Name (Brigid), Email (brigid.oconnor@flatironschool.com), and Choose Your Discipline (Software Engineering). Below the form is a message box with the text: 'Hi! Could use a little help on where to start with the React Controlled Components Lab. I understand the concepts but having a tough time with first steps. GitHub repo is: https://github.com/leanmartinstudio/raa'. A 'Start chat' button is at the bottom of the chat window. A red box highlights a 'Chat' button in the bottom right corner of the interface, with an orange arrow pointing from it to the 'Start chat' button in the chat window.

# Expectations when working with our TCs:

## What Students Can Expect from TCs

- There will likely be a wait time.
- Screen sharing and pair programming.
- You likely won't work with a TC all the way through to completing a lab or a final solution. You can always pop back in if you get stuck again!
- The TC team syncs up with the rest of the instructional staff at Flatiron School to share feedback.

## What TCs Expect from Students

- **Be kind.** We know you might be frustrated or under stress, and we are here to help you succeed.
- **Be patient.** We support a lot of students, and it's hard to predict wait times. We're working as diligently as we can to get through the queue.
- **Be collaborative.** We aren't going to code for you, or give you the answers straight away. It's all a part of the learning process!

# Ada

## Meet our chat bot, powered by OpenAI

- Tailored prompts
- Asks questions and uses analogies, diagrams, code samples
- Guides you toward solution

## When?

- Use when Pair with a Technical Coach option is unavailable

## How? Chat box in Canvas

### Array Basics

#### Learning Goals

- Access and manipulate data in arrays in Ruby

#### Introduction

Arrays in Ruby share many of the characteristics you're already familiar with from working with arrays in JavaScript. They store lists of data (which can be any data type, and even multiple types of data within the same array) and provide a set of methods for working with arrays in Ruby.

#### Array CRUD

In Ruby, as in JavaScript, you'll commonly need to Create, Read, Update, and Delete data from arrays. For a full list of array methods in Ruby, see the [documentation](#) for a full list of array methods in Ruby.

Open up IRB and follow along with these examples. Let's start by creating an array representing a shopping list.

```
shopping_list = ["Cookies", "Ice Cream", "Snickers"]
```

#### Reading Elements From Arrays

As in JavaScript, you can access elements of the array using bracket notation with the index of the element you want to access.

```
shopping_list[0]  
# => "Cookies"  
shopping_list[1]  
# => "Ice Cream"
```

You can also access elements starting from the end of an array by providing a negative index:



Chat



Please show me how to loop through an array in python

Certainly! In Python, you can loop through an array using a for loop. Here's an example:

```
my_array = [1, 2, 3, 4, 5]
```

```
for item in my_array:  
    print(item)
```

In this example, we first define an array called `my_array` that contains the integers 1 through 5. We then use a for loop to iterate through each item in the array and print it to the console.

You can also use a while loop to iterate through an array by using an index variable to keep track of the current position in the array:

```
my_array = [1, 2, 3, 4, 5]  
index = 0
```

```
while index < len(my_array):  
    print(my_array[index])  
    index += 1
```

In this example, we initialize an index variable to 0 and use a while loop to iterate through the array until we reach the end.

Ask a question...



# **Program Structure & Schedule**

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# Program Timeline

## Phase 1

*Weeks 1-3*

Data Analytics

## Phase 2

*Weeks 4-6*

Statistics

## Phase 3

*Weeks 7-9*

Machine  
Learning

## Phase 4

*Weeks 10-12*

Advanced  
Topics

## Phase 5

*Weeks 13-15*

Capstone 🎉



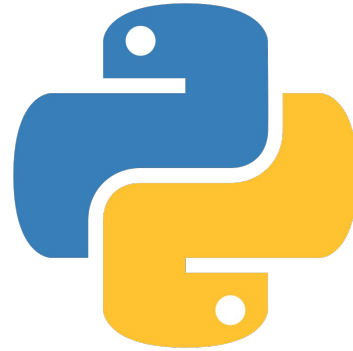
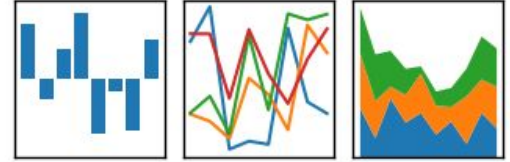
# Curriculum Overview

## Phase 1

- Coding in Python
- Data Manipulation and Analysis
- Data Gathering
- Data visualization + Tableau

pandas

$$y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$$



# Curriculum Overview

## Phase 2

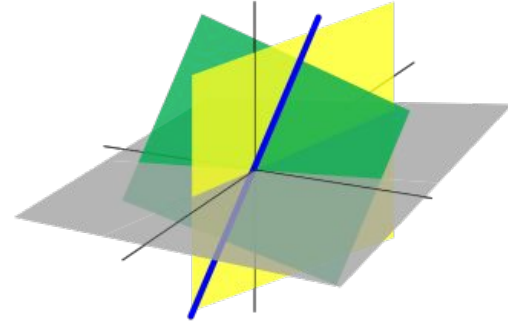
- Coding in SQL
- Statistical Modeling
- Hypothesis testing
- Simple Linear Regression



# Curriculum Overview

## Phase 3

- The Math behind Machine Learning
- Classification Algorithms
- Building Modeling Pipelines



# Curriculum Overview

## Phase 4

- Recommendation Systems
- Natural Language Processing
- Neural Networks



# Curriculum Overview

## Phase 5

- Capstone!
- 2-3 Week Solo
- Project of choice



# The Next 15 Weeks

## Lessons and Labs

Learn the fundamentals. **You do NOT need to complete all labs and lessons** - but going through most is essential to passing the code challenges and creating projects.

## Quizzes [10% of Grade]

Each phase you will take a few quizzes to check your understanding and ensure your learning is on track! Required quizzes are highlighted in each phase.

## Code Challenges & Checkpoints [40%]

During each phase, you'll have checkpoints and a code challenge to assess your understanding of the phase.

## Projects [50% of Grade]

In week 3 of phase 1-4, you will build a project to practice all of the concepts from the phase and build your portfolio for the job search. Phase 5 consists of 3 weeks to build a cumulative capstone project.

# Plagiarism & Cheating

## Lessons and Labs

Remember that you're here to learn and while you can use any resource you desire, copy/pasting code doesn't help you prepare for assessments, interviews, or jobs.

## Blogs

Don't plagiarize! Using another entity's work without attribution is plagiarism!

## Code Challenges

Allowed:

- Canvas labs, lessons, and lectures
- Your own notes, previous labs, or reviews

Not Allowed:

- Messenger apps
- ChatGPT and other AIs

## Projects

Don't plagiarize! Using another entity's work without attribution is plagiarism!

If using code from another source, it needs to be cited and you need to understand how it is being used.

# Get your blog on!

- Approximately 5 minute read
- Published online
- Technical or tech related subjects
- Recommended to write a blog per phase



**DEV**



**Medium**

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# Setting Yourself Up for Success!

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# This isn't like high school or college!



## Teaching Methods

- 1:1 instructor meetings
- Office hours
- Lectures (live and recorded)
- Curriculum (lessons and labs)

## Student Responsibilities

- Attending and watching Lectures
- Canvas course completion
- Code Challenges
- Projects

## Professional Development

- Online branding (LinkedIn)
- Resume and portfolio building
- Networking

# Personal Empowerment Protocol:

1. Read the error

2. Google the problem

3. Ask a peer

4. Ask an instructor

- This is an important framework in general for debugging / working through problems.
- Remote learning makes it even more vital!
- Reading errors, looking up problems, and collaborating with peers are essential skills.
- Get practice with them before asking us!

# Imposter Syndrome



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**Any questions?**



# For the rest of today...

**Now:** Data Science Toolkit Lecture!

- Then jump into canvas
- Environmental setup
- Terminal and Git content

**1:00 pm:** Lunch Break

**3:00 pm ET:** Into to Terminal Lecture!

**5:00 pm ET:** Program Orientation

**6:30 pm ET:** Stand Down

***Get stuck? Post in our cohort Discord channel!***

