

# Introduction to PyCharm

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SDSC 2001 Tutorial 2

Collin SAKAL

When you  
encounter coding  
errors or software  
problems....

- Follow the “**Ask 3 then me**” rule
  1. Ask (*look at*) the lecture notes and recordings
  2. Ask (*search using*) Google or Baidu
  3. Ask your classmates
- **If you still cannot find a solution, then ask me** or the other Teaching Assistants via email or during office hours
- Software issues and coding errors happen all the time, so don't stress!

If you don't believe me, listen to the top AI researchers in the world!

- AlphaGo, developed by DeepMind, **was the first artificial intelligence model to beat the Go world champion**



“If DeepMind has figured out how to write code that doesn't have bugs, that is a bigger news story than AlphaGo” – *Andrew Jackson, AI Researcher*

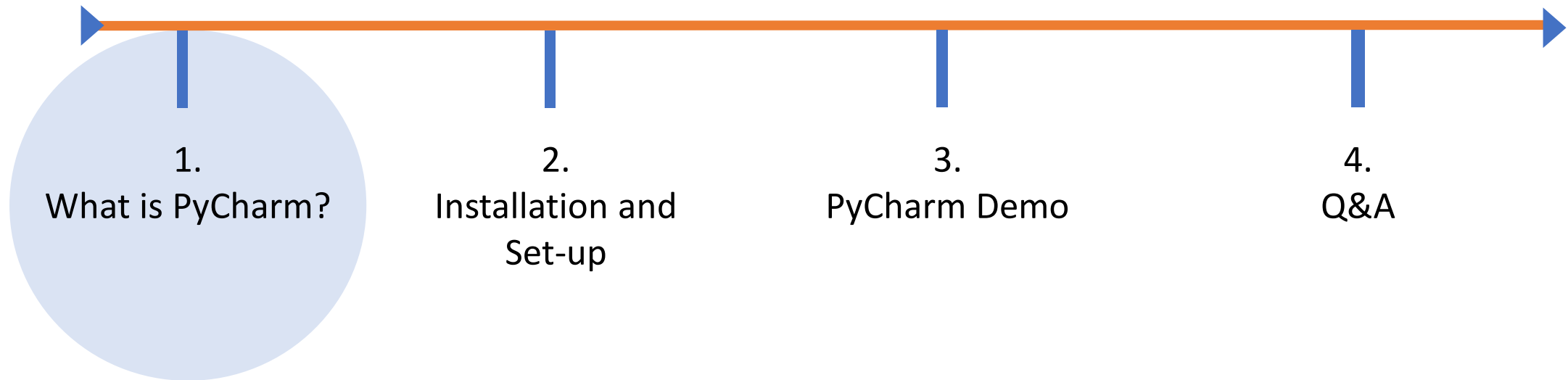


Before you can build  
complex AI algorithms,  
you need to learn  
Python for Data Science!

Let's talk about PyCharm

# Today's Topics

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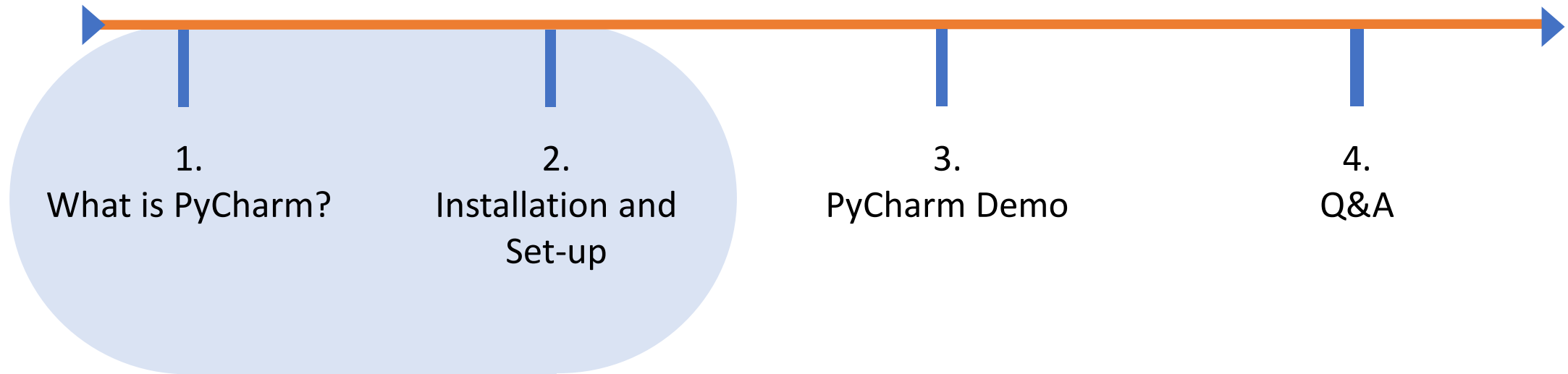


# What is PyCharm?

- PyCharm is an **Integrated Development Environment (IDE)**
- In short: it's a place for you to write Python code and store your Python projects
- Other IDEs include Jupyter Notebooks, Spyder, VS Code, and RStudio

# Today's Topics

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# Installation Overview




1. Create a JetBrains account with your **CityU email address** here: <https://account.jetbrains.com/login>.  
Check your email and confirm your account.
2. After you sign in you will see “NO AVAILABLE LICENSE.”  
Apply for a free student license here:  
<https://www.jetbrains.com/community/education/#students>
3. Download and install PyCharm
4. Open PyCharm and start coding!



Step 1: Create a JetBrains account with your **CityU email address** here: <https://account.jetbrains.com/login>. Check your email to confirm your account

**JET BRAINS**

## Welcome to JetBrains Account

-  **Access your purchases**  
and view your order history
-  **Identify expired and outdated licenses,**  
order new licenses and upgrades
-  **Manage your company licenses**  
and distribute them to end users




**Sign in with existing account**

Email address or Username

Password

**Sign In** [Forgot password?](#)

Or sign in with:

 Google  

**Not registered yet?**

**Create JetBrains Account**

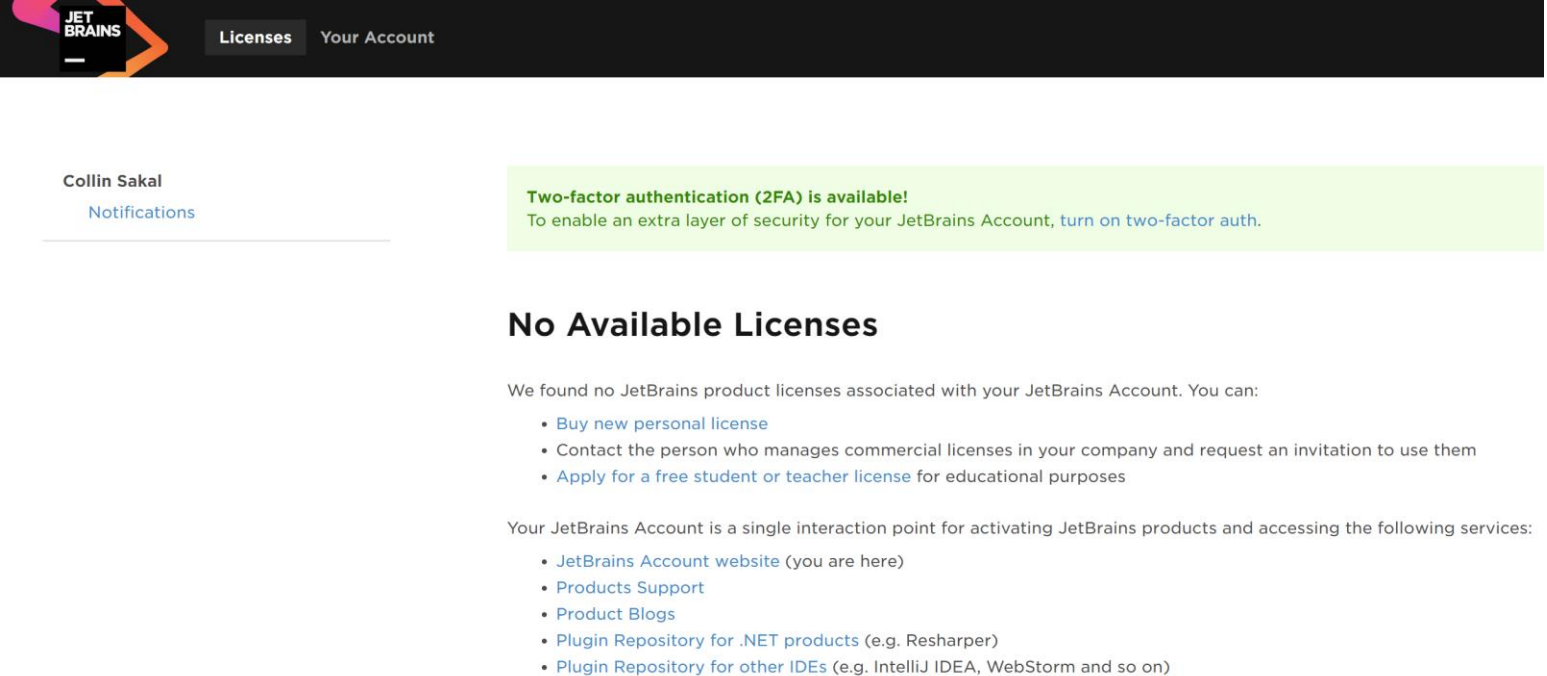
csakal2-c@my.cityu.edu.hk

**Sign Up**

Step 2: After you sign in you will see “NO AVAILABLE LICENSE.”

Apply for a free student license here:

<https://www.jetbrains.com/community/education/#students>. Check your email to proceed



The screenshot shows the JetBrains account interface. At the top is a dark navigation bar with the JetBrains logo on the left and 'Licenses' and 'Your Account' on the right. Below the navigation bar, the user's name 'Collin Sakal' and a link to 'Notifications' are displayed. A green notification banner states: 'Two-factor authentication (2FA) is available! To enable an extra layer of security for your JetBrains Account, turn on two-factor auth.' The main heading is 'No Available Licenses'. Below this, a message says: 'We found no JetBrains product licenses associated with your JetBrains Account. You can:'. This is followed by a list of three options: 'Buy new personal license', 'Contact the person who manages commercial licenses in your company and request an invitation to use them', and 'Apply for a free student or teacher license for educational purposes'. At the bottom, a section titled 'Your JetBrains Account is a single interaction point for activating JetBrains products and accessing the following services:' lists five services: 'JetBrains Account website (you are here)', 'Products Support', 'Product Blogs', 'Plugin Repository for .NET products (e.g. Resharper)', and 'Plugin Repository for other IDEs (e.g. IntelliJ IDEA, WebStorm and so on)'.

JET BRAINS

Licenses Your Account

Collin Sakal  
[Notifications](#)

**Two-factor authentication (2FA) is available!**  
To enable an extra layer of security for your JetBrains Account, [turn on two-factor auth](#).

## No Available Licenses

We found no JetBrains product licenses associated with your JetBrains Account. You can:

- [Buy new personal license](#)
- Contact the person who manages commercial licenses in your company and request an invitation to use them
- [Apply for a free student or teacher license](#) for educational purposes

Your JetBrains Account is a single interaction point for activating JetBrains products and accessing the following services:

- JetBrains Account website (you are here)
- Products Support
- Product Blogs
- Plugin Repository for .NET products (e.g. Resharper)
- Plugin Repository for other IDEs (e.g. IntelliJ IDEA, WebStorm and so on)

## Step 3: Download PyCharm

The screenshot shows the '1 Student Pack License' page for JetBrains. At the top right is a blue button labeled 'Buy new license'. The main heading is 'JetBrains Product Pack for Students', with a 'Download' button circled in orange. Below this is a table of products, with the 'PyCharm' row circled in orange. To the right of the table is a list of products in three columns. At the bottom, there is a note about the 'Toolbox App'.

1 Student Pack License

Buy new license

License ID: NPABMLJBWU

| Product                | Version | Action   |
|------------------------|---------|----------|
| AppCode                | 2022.2  | Download |
| CLion                  | 2022.2  | Download |
| DataGrip               | 2022.2  | Download |
| DataSpell              | 2022.2  | Download |
| GoLand                 | 2022.2  | Download |
| IntelliJ IDEA Ultimate | 2022.2  | Download |
| PhpStorm               | 2022.2  | Download |
| PyCharm                | 2022.2  | Download |
| ReSharper              | 2022.2  | Download |
| ReSharper C++          | 2022.2  | Download |
| ReSharper Ultimate     | 2022.2  | Download |
| Rider                  | 2022.2  | Download |
| RubyMine               | 2022.2  | Download |
| WebStorm               | 2022.2  | Download |
| dotCover               | 2022.2  | Download |
| dotMemory              | 2022.2  | Download |
| dotTrace               | 2022.2  | Download |

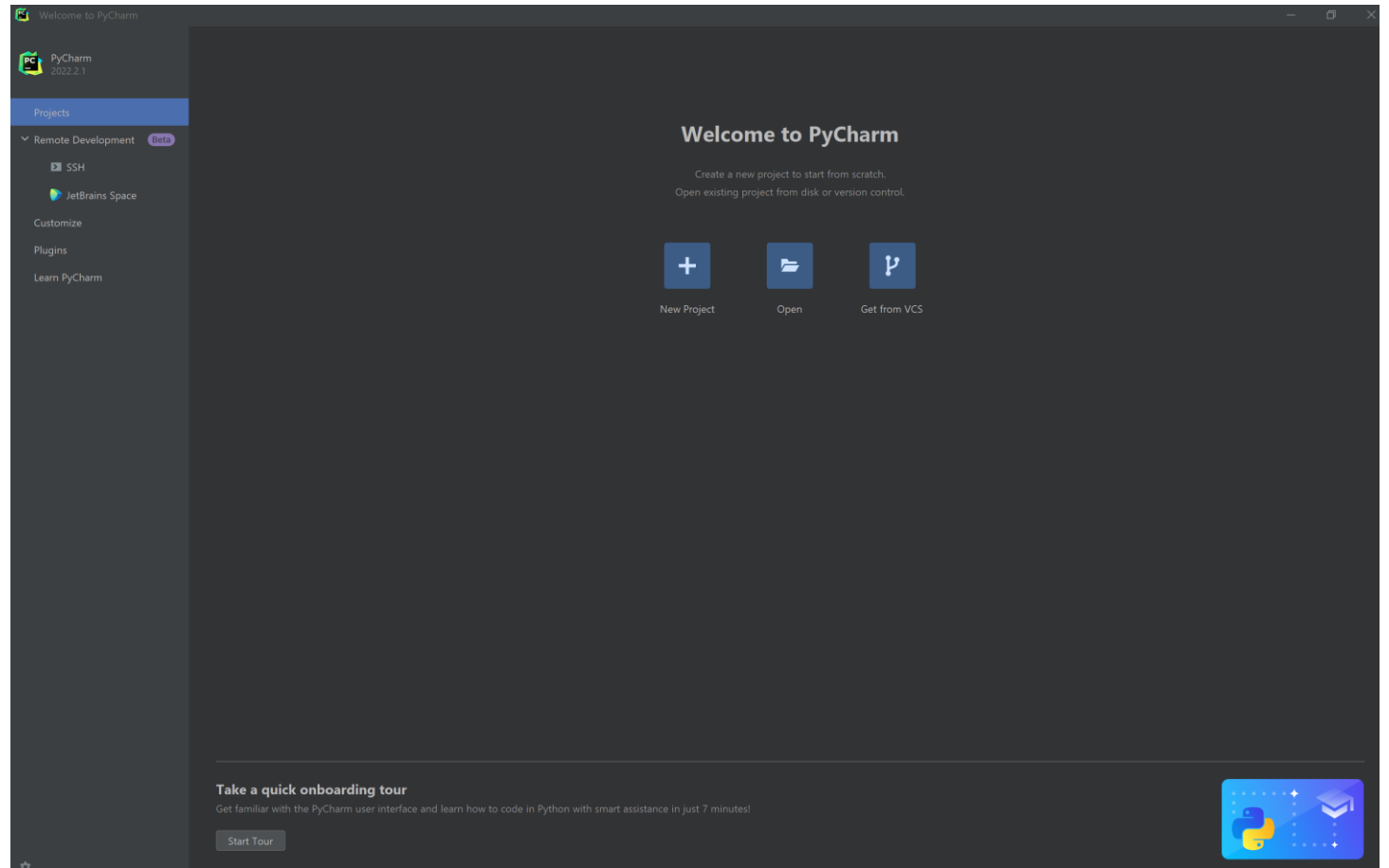
- DataGrip
- GoLand
- ReSharper C++

- DataSpell
- IntelliJ IDEA Ultimate
- Rider

- dotCover
- PhpStorm
- RubyMine

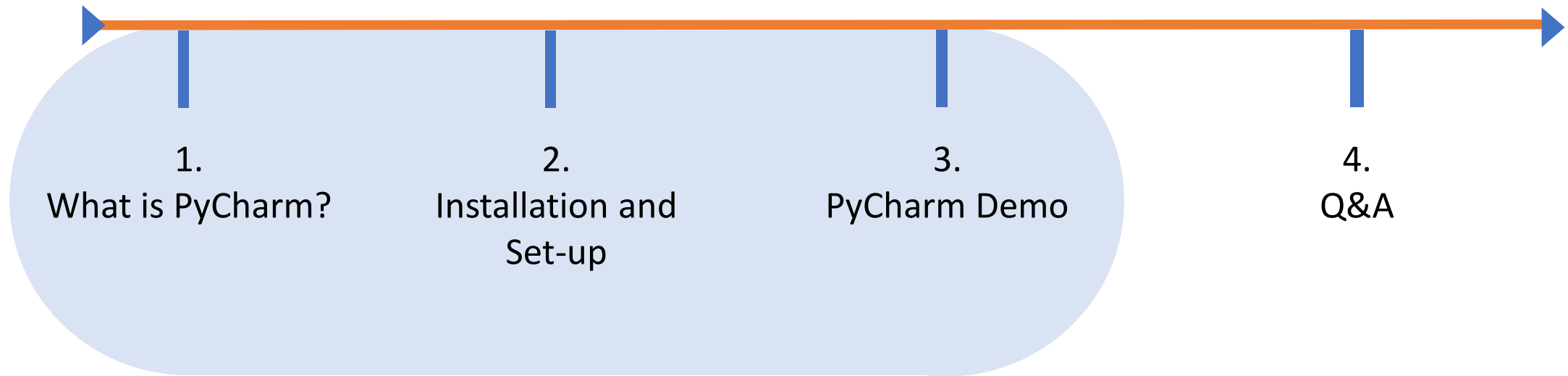
Get the [Toolbox App](#) to download these products and future updates with ease.

Step 4: Open PyCharm and start coding! (you may have to login to your JetBrains account through PyCharm to begin)



# Today's Topics

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# PyCharm Demo Topics

- Creating a project
- Running code
- Installing packages
- Managing code: to-do lists and saving files
- Version control: PyCharm and Git

# Useful keyboard shortcuts in PyCharm

- Run selected code only: Alt + Shift + E
- Search everywhere in PyCharm: Double Shift (Shift + Shift)
- Finding text/code within one document: Ctrl + F
- Duplicate code: Ctrl + D
- View recent changes to a file: Alt + Shift + C

## Resources for learning more about PyCharm

- Getting started with PyCharm:  
<https://www.jetbrains.com/help/pycharm/quick-start-guide.html>
- There are tons of PyCharm videos on YouTube:
  - Setup and basics:  
<https://www.youtube.com/watch?v=56bPIGf4us0>
  - More depth (2hr course):  
[https://www.youtube.com/watch?v=hc50ALh\\_x5g](https://www.youtube.com/watch?v=hc50ALh_x5g)
- For customizing colors and fonts:  
<https://www.jetbrains.com/help/pycharm/configuring-colors-and-fonts.html>



# References

- **Image credit:** <https://www.popularmechanics.com/technology/a19863/googles-alphago-ai-wins-second-game-go/>
- **AlphaGo Movie:** <https://www.alphagomovie.com/screenings>