Visual Studio LIVE!
EXPERT SOLUTIONS FOR ENTERPRISE DEVELOPERS
Las Vegas
Elevate Your Career with Python and AI:
A Hands-On Lab Workshop
Eric D. Boyd
Founder & CEO
responsiveX
Level: Introductory
#VSLIVE
Your Code Powers the World.
Our Training Powers You.

# Eric Boyd

responsiveX

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@EricDBoyd

Microsoft® Most Valuable Professional

Microsoft Regional Director

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# Session Survey

- Your feedback is very important to us
- Please take a moment to complete the session survey found in the mobile app
- Use the QR code or search for “Converge360 Events” in your app store
- Find this session on the Agenda tab
- Click “Session Evaluation”
- Thank you!

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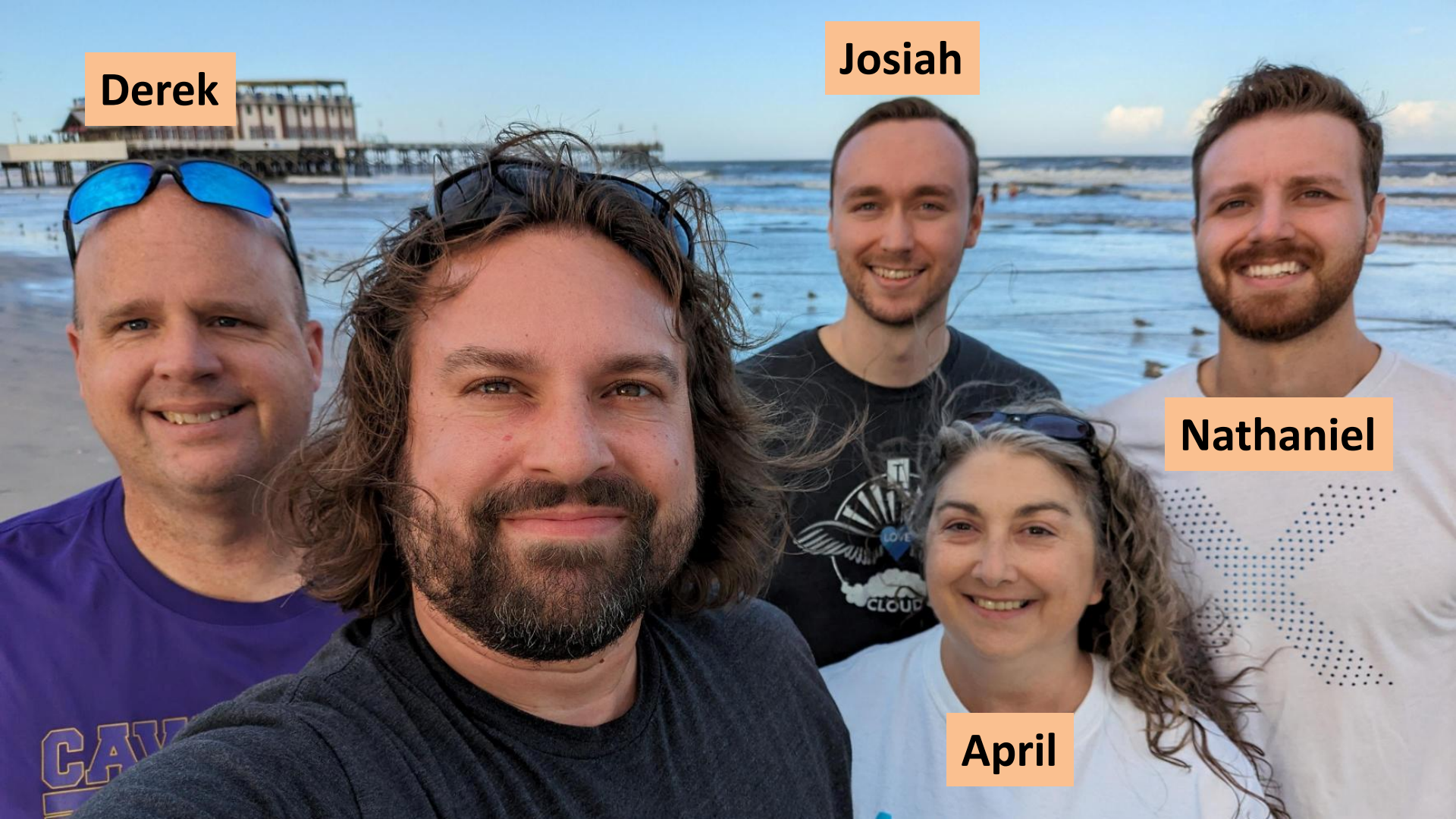
Infrastructure // App Dev // Data and AI

← DevSecOps →


Derek
Josiah
Nathaniel
April

# Agenda

- Day 1
  - Python Introduction
- Day 2
  - Introduction to AI with Python

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# Day 1

- Setup your development environment
- Functions & Variables
- Conditionals & Loops
- Exceptions
- Libraries & Modules
- Testing
- File IO
- Regular Expressions
- OOP
- and more

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# Why do you want to learn Python?

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# Day 2

- Search
- Knowledge
- Uncertainty
- Optimization
- Learning
- Neural Networks
- Language
- And more

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# Why do you want to learn about AI?

# CS50

https://www.edx.org/school/harvardx

# Day 1

Morning coffee break
11:00 am – 11:15 am

Lunch break
1:00 pm – 2:00 pm

Afternoon snack break
4:00 pm – 4:15 pm

End by
6:00 pm

# Day 2 – Start @ 9:00 am

Morning coffee break
11:00 am – 11:15 am

Lunch break
1:00 pm – 2:00 pm

Afternoon snack break
4:00 pm – 4:15 pm

End by
6:00 pm

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# Recommendations

- Get to know people in the room
  - And at the conference at large
- Relax, exercise, and learn
- Experiment and have fun

# Let’s have some fun

**X/Twitter**

#VSLive

**You can mention me**

@EricDBoyd

**Things to post**

Photos

Something interesting you’re learning

# What is Python?

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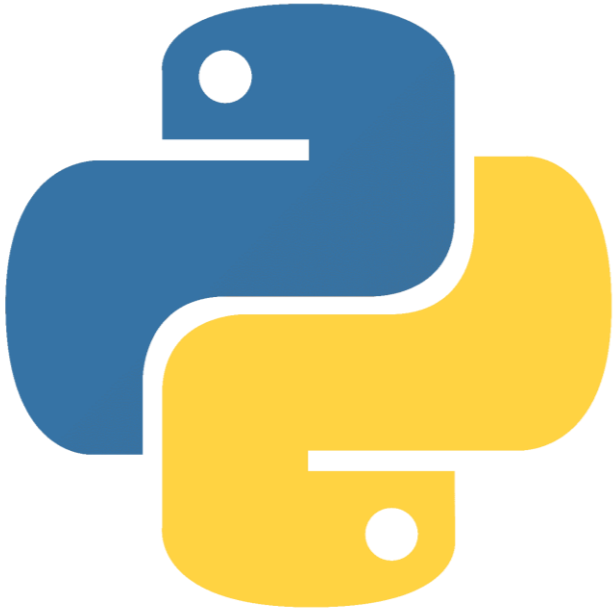

python™

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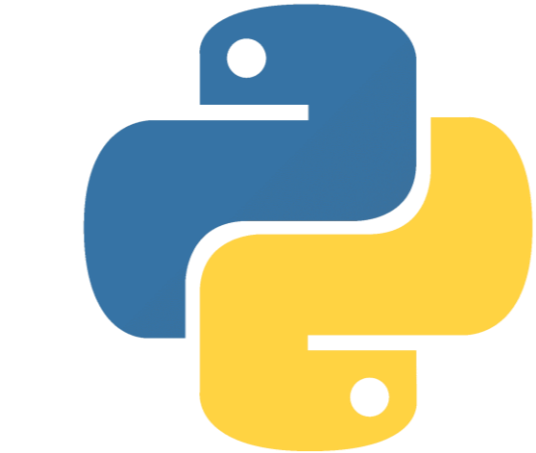

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high-level

dynamic

object-oriented

cross-platform

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# TIOBE

the software quality company

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# TIOBE Index

| Programming Language | 2024 | 2019 | 2014 | 2009 | 2004 | 1999 | 1994 | 1989 |
|---|---|---|---|---|---|---|---|---|
| Python | 1 | 4 | 8 | 6 | 11 | 27 | 22 | - |
| C | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 |
| C++ | 3 | 3 | 4 | 3 | 3 | 2 | 2 | 3 |
| Java | 4 | 1 | 2 | 1 | 1 | 13 | - | - |
| C# | 5 | 6 | 5 | 8 | 8 | 30 | - | - |
| JavaScript | 6 | 8 | 9 | 9 | 9 | 20 | - | - |
| Visual Basic | 7 | 19 | - | - | - | - | - | - |
| PHP | 8 | 7 | 6 | 5 | 6 | - | - | - |
| SQL | 9 | 9 | - | - | 7 | - | - | - |
| Assembly language | 10 | 11 | - | - | - | - | - | - |
| Objective-C | 27 | 10 | 3 | 38 | 48 | - | - | - |
| Lisp | 33 | 28 | 14 | 17 | 15 | 12 | 7 | 2 |
| (Visual) Basic | - | - | 7 | 4 | 5 | 3 | 3 | 7 |

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# TIOBE Index

| Feb 2024 | Feb 2023 | Change | Programming Language | Ratings | Change |
|---|---|---|---|---|---|
| 1 | 1 | | Python | 15.16% | -0.32% |
| 2 | 2 | | C | 10.97% | -4.41% |
| 3 | 3 | | C++ | 10.53% | -3.40% |
| 4 | 4 | | Java | 8.88% | -4.33% |
| 5 | 5 | | C# | 7.53% | +1.15% |
| 6 | 7 | ^ | JavaScript | 3.17% | +0.64% |
| 7 | 8 | ^ | SQL | 1.82% | -0.30% |
| 8 | 11 | ^ | Go | 1.73% | +0.61% |

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https://www.tiobe.com/tiobe-index

# How old is Python?

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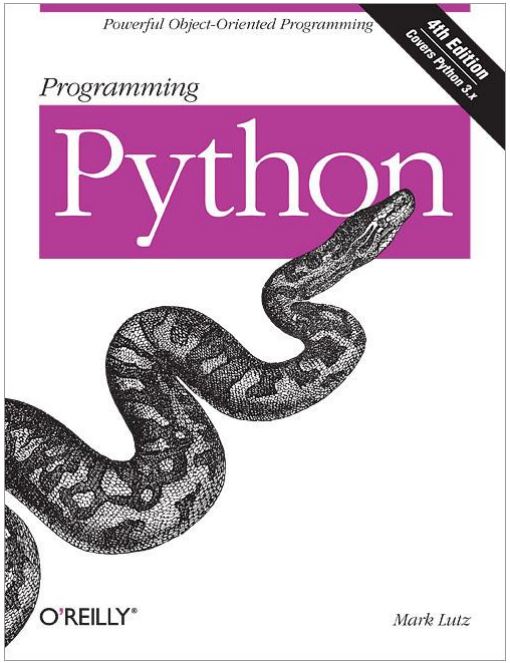
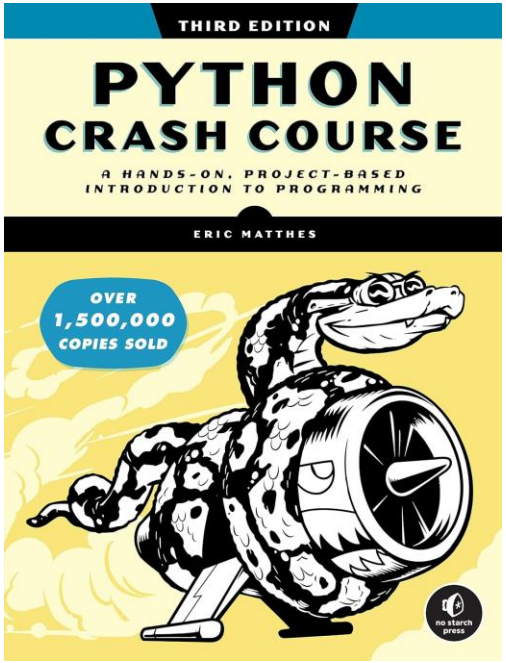
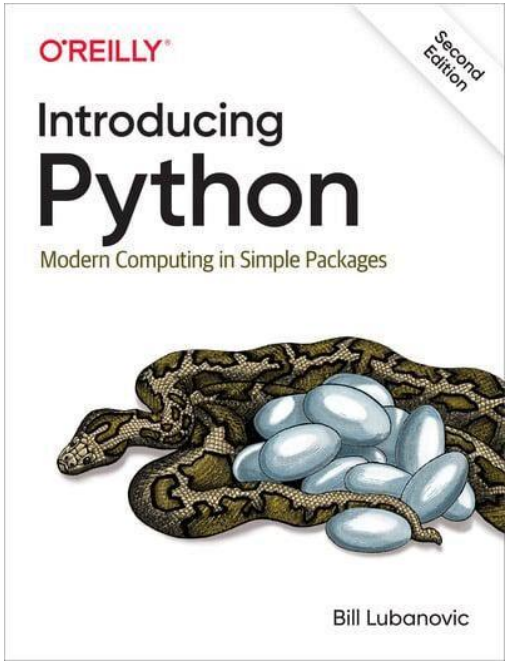
Guido Van Rossum

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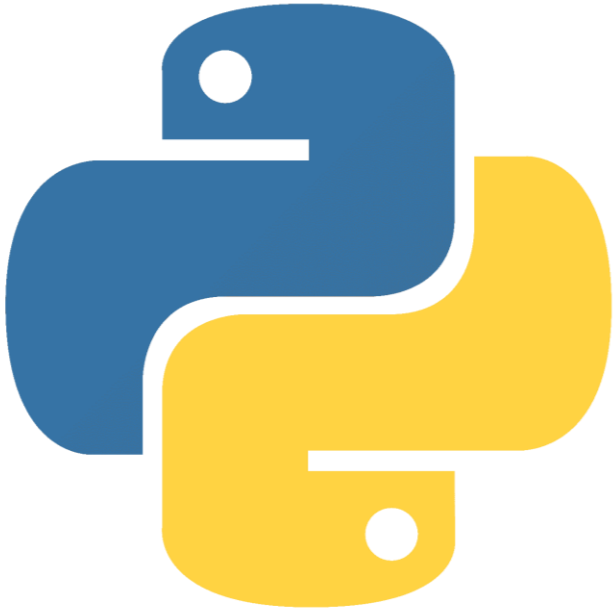

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What questions do you have?

What do you want to learn?