Agenda

➢ Introduction and Goals

➢ Coaches & Volunteers

➢ Coding in Python

➢ Club Plan

➢ Registration Information

Introduction

Python Bytes is about exploring ideas using code.

Multiple classrooms to get students working on the right challenges; beginners or some degree of experience.

We have experienced coaches, adult and high school students, plus a club chair and supportive parents.

To succeed we will ask a few things of the participating students and their parents; more in a moment!

Goals

- Supportive environment for the students
  - Distraction remark
- Exploration of ideas to motivate coding
  - ...powered by STEAM...
- Learn Python fundamentals
- Practice communication skills
- Experiment and have fun with our fellow students

The team includes...

Lead Coach and Curriculum Director

Rob Fatland is a Research Computing Director at the University of Washington. He holds a PhD in Geophysics and has worked at NASA-JPL and Microsoft Research. He has contributed in various ways to K12 STEM education for over 30 years. His daughter is a former Tyee student now in college.

Co-Lead Coaches

John Yin

Ph.D form UT Austin computer Science, has more than 20 years of experience in both research and industry. John has mentored high school summer interns, Ph.D students previously. Has Python coding experience for more than 15 years.

Srimkar Bandla

Srikar is a software engineer with 12 years of experience under his belt currently working in Microsoft. He holds a Bachelor degree in Electronics and Communication Engineering from Lancaster University. He has contributed to various telecommunications and banking domain application that people use everyday.

Chairs
Juliet Gong, and Srikar Bandla (pythonclub@tyeeptsa.org)

HS Coaches

Dhruv Saini   **Pranav Dasan**

Jeffrey Li   **Marcus Lee**

Coaches

Dhruv Saini: Bellevue High School 11th grade

Dhruv has done internships at two companies: Partify AI and Bond Intelligence, which both were based on Python coding. Dhruv has also won four hackathons, of which two were fully Python-based and two involved coding a python server, with an HTML/CSS/JS frontend. Lastly, Dhruv is the Head of Technology at a nonprofit called A Sustainable Future with 20 tech team members, with the codebase being about 75% Python.

Pranav Dasan: Newport High School, 11th grade.

Pranav has been coding since middle school (learned Python because of Python Bytes actually) and have made many projects since then. Such as art projects in Turtle, small games in Pygame, web scrappers. Pranav is currently working on a ML model which can recognize facial expressions.

Coaches

<u>Jeffrey Li</u>: Newport High School, 11th grade.

Jeffery has Python coding experience since in middle school. Jeffery also attended Tyee Python Bytes when he was in middle school and competed in FLL.

<u>Marcus Lee</u>: Newport High School, 12th grade.

Marcus currently is the president of the programming club for Newport High School. Marcus has been doing Python Bytes for 3 years.

Why Python?

- Python is in common use in engineering and science...

- Python has a learner-friendly syntax... `if 1 + 2 == 3: print("It's true!")`

- The Python community builds and shares Libraries freely
    - ... turtle for convenient drawing tools
    - ... requests to talk to the Internet
    - ... PyGame to create a graphical game
   - ...music21 to create music

To Ensure students have a working environment: We will distribute set up instructions

# Strategies for fun and progress

- Get your student set up with a Python-capable laptop

- Go through the first 'No Big Deal Project' with your student

- Get an introductory book on Python for kids, try it out

- Each week: Read and discuss the Take Home Card

- Explore YouTube for inspiring ideas

- Volunteer on the Parent Scheduler
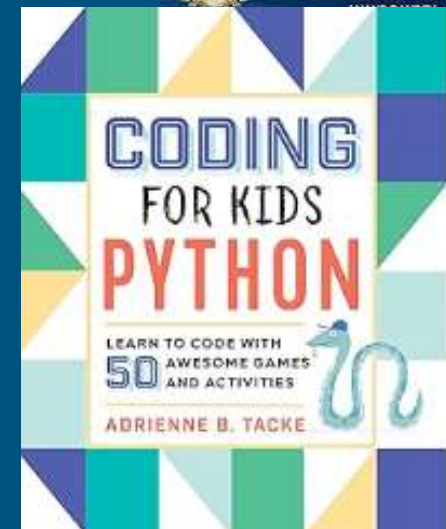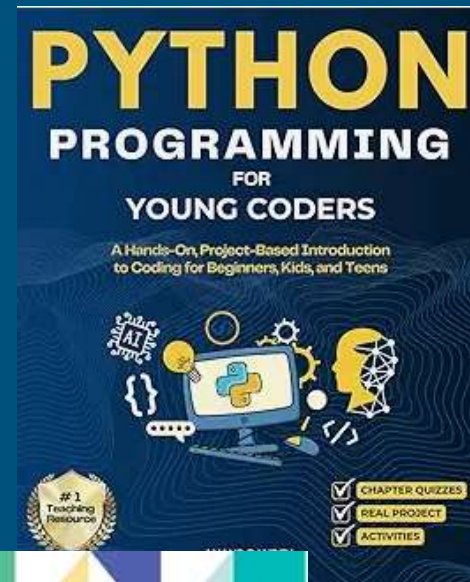
Python Bytes "Driven by Ideas" Framework
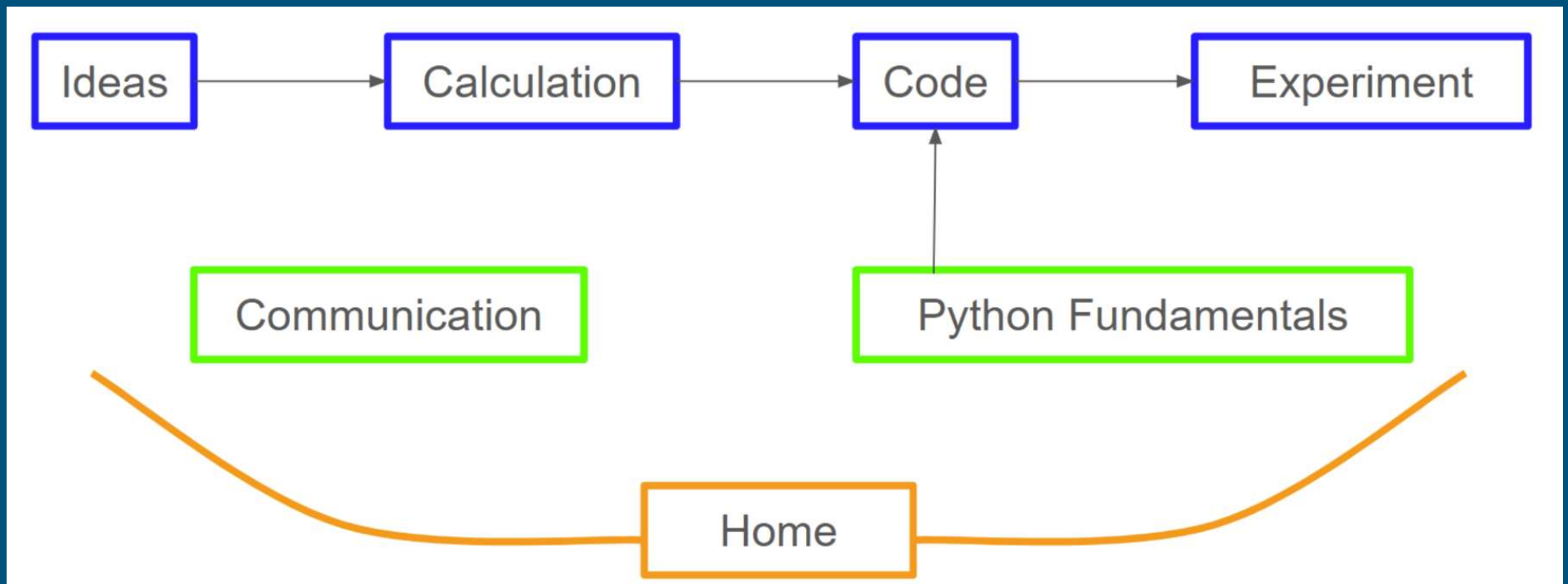
Ideas Calculation Code Experiments Projects
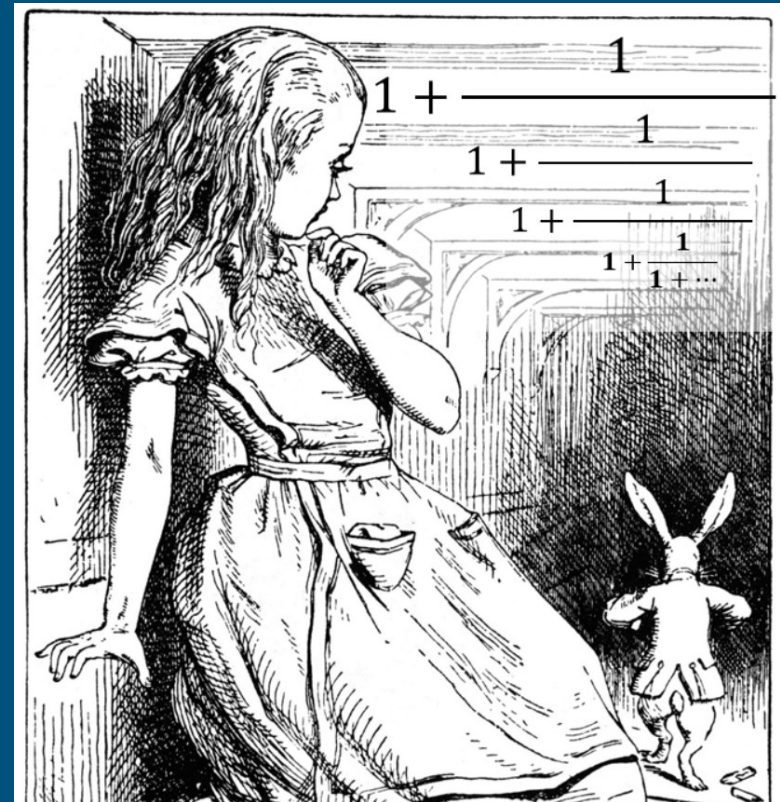
Research motivators

- 14th century Japanese poetry

- Small proteins

- Hospital quality of care

- Glaciers

- Near-earth asteroids

Next: Teaching Review

- Topics ———————→
- Learning code

"Retrograde motivation"

Curriculum 1: Topics that lead to code

- Spiral Gyro
- Ms Halfway sends a letter
- If (Four Prisoners, Five Hats: Three Red Two Black)
- Chaos in the town square
- Four bugs play chicken
- An almost empty universe
- Instant language: Just add feedback
- Flappy Bird
- Music Composition
- Talking to the Internet

Python Bytes: FAQ

Q: Can my student work with / work near their BFF?
A: Yes! Provided they work cooperatively on the material.

Q: Is it ok to use AI?
A: This is a longer conversation; but in brief: It is in your student's interest to focus on their own Real Intelligence.

Q: Is there homework?
A: Yes! Take Home Cards! No grades, no stress; just rewards and positive feedback for working on your own beyond club time.

A Sober Remark

The only way we know of to become proficient at coding is to spend time coding on your own.

Python Bytes: Lid Down Rule

"The first rule of computer programming is: Put away your computer."

Python Bytes is OUTSIDE of the usual world of tasks and distractions. Whereas: Computer screens are a vast complex of distractions.

At club meetings the computer lid is closed until we have code to write.

Python Bytes: other rules

- **PythonBytes Points**
  Students can accumulate PythonBytes **points** to redeem **prizes** throughout the year.
  Earning Points: Attend club meetings, participate, follow coach / volunteer instructions

- **Classroom use rules**:
  Students abide by school building rules and respect coaches and parent volunteers.

- **Warnings**:
  The club staff will warn students who disrupt classroom activities or behave inappropriately. If necessary we will contact parents. If a student receives **three** warnings, the student is required to drop out from the club (no refund), or the student's parent is required to serve as the classroom volunteer in their students' room for all future club meetings.

Python Bytes: Volunteering

Q: Parents volunteer for two club meetings?
A: Yes! We want parents involved for several reasons!

- Parents help us maintain a calm, focused atmosphere
- Help with some administrative tasks: From taking roll to taking photos
- Do you code? Welcome to tech support!
- Help us develop students' communication skills: We will tell you how.

Requirements & Logistics

- Need a personal laptop (school laptops pose too many obstacles)

- Year Long Club - meets every Wednesday @Tyee In-person 6:30 - 8:00 p.m.
Follows BSD Calendar, Breaks and Holidays

- Parents are required to volunteer at least twice for this school year

- Students must respect and follow the requests of student coaches and volunteers.

Registration - Python Bytes Club

- Seats available: 50

- Registration Fee : **$50 (non-refundable)**
  - Scholarships available

- Tyee PTSA membership required prior to registration (please join or renew here https://tyeeptsa.org/)

Contact pythonclub@tyeeptsa.org for additional information

Important Dates RF1

- **Registration Opens: TODAY!!** (Wednesday, Sept 24) @ **9:00 p.m**

- **Registration Closes:** Sep 30th 23:59PM or 50 students count

- **Registration Link:**
  https://tyeeptsa.org/Packet/PythonBytesReg2024/SignInPacketPage/

- **First Day of Club: Oct 8th** 6:30 - 8:00 p.m

Contact pythonclub@tyeeptsa.org for additional information

Slide 23

RF1   This slide needs some updates perhaps?
               Rob Fatland, 2025-09-21T16:51:29.267

Jg1 0   All information is up to date. Added bar code for registration.
               Juliet gong, 2025-09-23T17:12:49.823

Parent Volunteers

- For all after school activity parent volunteers, they must be approved through Sterling Volunteers at the L3 level. Please register for your background check here

- https://www.surveygizmo.com/s3/4581231/Athletics-and-Activities-Volunteer-Form??jsfallback=true
   (L3 is include L2, but if you are L2 you must apply for L3)

- *Parents must be approved through Sterling volunteers!*

Contact pythonclub@tyeeptsa.org for additional information