



exploretech.la  
April 2022



# Schedule

9:00–9:30	Opening Ceremony
9:30 – 10:15	Session 1
10:30 – 11:15	Session 2
11:30 – 12:15	Session 3
12:15 – 1:00	Lunch with a Mentor
1:00 – 1:30	Closing Ceremony

During each session, the corresponding group will be in the Exhibition Hall. All other students will choose a workshop or panel to attend.

# Guest Speaker



**Professor  
Carey Nachenberg**  
*Adjunct Professor UCLA*

Carey is an Adjunct Professor of Computer Science at UCLA. Carey spent the first 24 years of his career in the field of cyber-security, rising to chief engineer at Symantec and then serving as a founding member of Google's cyber-security spinout Chronicle. Most recently, Carey transitioned into the self-driving car field, serving as a principal engineer at Lyft's Level 5 autonomous vehicle division. Carey is the author of the thriller novel, *The Florentine Deception*.

# Session 1: Workshops

9:30 AM - 10:15 AM

## Coding 101

*Room 2408*

Learn how to code - without any of the typing! We'll be covering variables, loops, and conditional statements. Use Scratch to test out your knowledge and complete the challenges!

\*\*\* Pre-event request: please sign up for an account at <https://scratch.mit.edu/>

## UI/UX

*Room 3508*

Wonder why Instagram, TikTok, or Snapchat grab our attention so seamlessly? We'll talk about human computer interaction (HCI) and the concepts of user interface and user experience. Then, you'll practice making your own mini-design using some of the best design principles we know.

## Are You Related to a Strawberry?

*Room 2412*

Are you related to a strawberry? Are you the plant parent? Learn about the intersection of biology and computer science in what we call bioinformatics. Come for a hands-on experience in extracting DNA!

## **Pear Deck**

*Room 2410*

Interested in creating your own products or starting a business? If you want to turn your ideas into reality, stop by the Product Development Process workshop and learn from professionals in the tech industry! This workshop is hosted by Pear Deck, an educational technology company catered to K-12 students.

## **Internet of Things**

*Room 3517*

Smartphones aren't the only things in our lives that are high-tech anymore — everything from our cars to our washing machines to our light switches are equipped with incredible technology, forming what is called the Internet of Things (IoT). Check out our workshop to learn how physical objects talk to the Internet to help improve our daily lives!

## **Game Dev**

*Room BRR*

Gamers rise up! Learn about the history of game development and the process of creating one!

# Session 2: Workshops

10:30 AM - 11:15 AM

## Pear Deck

Room 2410

Interested in creating your own products or starting a business? If you want to turn your ideas into reality, stop by the Product Development Process workshop and learn from professionals in the tech industry! This workshop is hosted by Pear Deck, an educational technology company catered to K-12 students.

## Teaching a Computer to See

Room 2412

We can make computers see now! So does that mean robots are going to take over the world? Learn about Computer Vision and the technology that goes into everything from Instagram filters to self-driving cars. Come and learn about Computer Vision!

## exploreWeb.la: Intro to Web Dev

Room 2408

Want to create the next Amazon or Facebook? You visit multiple websites every day, but have you ever wondered how they are built? By the end of our workshop, you'll be able to see the code behind any website and create your own with HTML and CSS!

## Spill the Tea with Cryptography!

Room BRR

Ever want to spill tea without your annoying nosy friends knowing?? Learn about Cryptography, the science and art of transforming messages into a secure form. Unless they know the secret key, they cannot decode the message!

## Artificial Intelligence and Machine Learning

Room 3508

Ever wonder how self-driving cars, Siri, or Netflix recommendations work? They all have to use artificial intelligence! Learn the basics about supervised learning and neural networks. Come for an in-depth activity that explores why advertisements always seem to know what we're looking for (hint: it involves artificial intelligence!).

# Session 2: Diversity 101 Panel

YOU have a space in the STEM world! Learn about the challenges women and minorities face in STEM and how to support these diverse communities.

## Meet the Panelists!



### **Yoshino Goto**

Yoshino (she/her) graduated UCLA in 2021, with a B.S. in Cognitive Science and a minor in Asian American Studies. She currently works at USC as a UX Designer, helping design websites and software for students and faculty. In her free time, she likes to cook, skateboard at the beach, and grow plants.

### **Christine Kim**

Hey there! My name's Christine (they/them), and I'm a current Computer Science sophomore at UCLA switching into Linguistics and Computer Science with a dual minor in Social Data Science and Film and Television. Earlier this year, I was the director of QWER Hacks, which is Major League Hacking's first LGBTQIA+ hackathon that supports and celebrates the queer and trans community in tech!



### **Ingrid Tien**

Hello! Ingrid (she/her) is a first-year doctoral student in Human Development & Psychology, currently working on an intervention study on adapted Cognitive Behavioral Therapy for youth with autism and co-occurring anxiety in a community-based setting. My research interests include disparities in treatment and diagnosis of girls with autism and influencing educational and public policy to benefit mental health resources.

### **Sydney Savage**

Sydney Savage (she/her) is passionate about creating a more empathetic and just world through diversity, equity, and inclusion initiatives. As DEI Program Coordinator at GoGuardian, she co-manages the implementation and facilitation of monthly meetings with our DEI Community of Practice, operationalization of our ERG Council, and development of the DEI Partnerships Program.



# Session 3: Workshops

11:30 AM - 12:15 AM

## HacKeD!

*Room 3517*

Ever wonder how your accounts were hacked? Learn about how passwords really get cracked and how to defend against hackers!

## Inside Blockchain

*Room 2412*

Confused about crypto? Baffled by blockchain? Want to know how Bitcoin works? Learn about how Bitcoin and NFTs really work at our brand new workshop, Inside Blockchain!

## Augment Your Reality

*Room BRR*

Ever wonder how Pikachu appears in your room while playing Pokemon GO? Or how a hat appears on your head while Facetiming? We'll cover the basics of Augmented Reality, how it works, and how it's applied. By the end of our workshop, you'll know what it takes to alter your own reality.

## Python Turtles

*Room 2408*

Come to the Python Turtles workshop to make art with code — follow through our detailed activity that will let you complete your own automated digital art project by the end of the workshop!

## Natural Language Processing

*Room 3408*

How does a computer ever come to understand our confusing human language? Come find out how Natural Language Processing plays a crucial role in deciphering human language!

# Session 3: Careers in CS Panel

Come see behind the scenes about how tech is used in our daily lives and how you can pursue some of the coolest careers using computer science!

## Meet the Panelists!



### Daniel Jaffe

Daniel (he/him) is a 3rd-year transfer student at UCLA studying Computer Science after an extensive career in the television industry, including roles at Hell's Kitchen and The Bachelorette! Ask him about working at NASA, Viasat, or transitioning into CS from another field.

### Henry Trinh

Henry (he/him) is a recent UCLA graduate with a degree in Computer Science. Ask him about his experiences interning seven different times during undergrad (including Snap, Tesla, Amazon and Google!)



### Colleen Li

Colleen (she/her) is a 3rd-year Cognitive Science student at UCLA with a specialization in coding. Ask her what Product Design is, how she landed her summer internships at Slack and Salesforce, and her experience as a woman in STEM!

### Evan Zhong

Evan (he/him) is a 3rd-year Computer Science student at UCLA. Ask him what Computer Vision is, how to get involved with CS research, and landing an internship at Facebook/Meta!



# Ackerman 2F

# Ackerman 3F

Ackerman Grand  
Ballroom (AGB)

Bruin Reception  
Room (BRR)

2412

2408

Elevator

3517

3508

Elevator



# Resources

## Keep Learning How to Code!

- Codeacademy - <https://www.codecademy.com>
- Code.org - <https://code.org>
- Python Tutor - <http://pythontutor.com>
- Harvard edX for Computer Science - <https://www.edx.org/course/introduction-computer-science-harvardx-cs50x>
- freeCodeCamp - <https://freecodecamp.org>

## Great STEM Programs to Get Involved In!

- COSMOS - <https://cosmos-ucop.ucdavis.edu/app/main>
- Girls Who Code - <https://girlswhocode.com/>
- iD Tech - <https://www.idtech.com/>
- Black Girls Code - <https://www.blackgirlscode.com/>
- Amazon Future Engineer - <https://www.amazonfutureengineer.com/>

*Learn more about ...*

### Machine Learning

- Introductory Guide - <https://github.com/kjaisingh/high-school-guide-to-machine-learning>

### the Internet of Things

- Business Insider Article - <https://www.businessinsider.com/internet-of-things-definition>

### NFT and Blockchain

- What a Block looks like - <https://andersbrownworth.com/blockchain/block>
- How Blocks are connected - <https://andersbrownworth.com/blockchain/blockchain>

### Python Turtles

- Intro to Turtle Programming in Python - <https://www.geeksforgeeks.org/turtle-programming-python/>
- Turtle Graphics - <https://docs.python.org/3/library/turtle.html>

### Natural Language Processing

- Monkey Learn - <https://monkeylearn.com/natural-language-processing/>

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