

### CodeDay Labs: A Virtual, Open-Source Internship Program

labs@codeday.org

# **CodeDay**<sup>®</sup>

#### 

# Virtual internships mentored by technology leaders.

CodeDay Labs is a project-focused summer experience which helps CS departments increase the diversity, graduation rate, and career outcomes of their students.

During CodeDay Labs, students work with a mentor from the technology industry to build an open-source project to solve a real-world need. Along the way, they attend tech talks and expert lunches, and prepare for their job search with practice interviews and resume feedback.

With three experience level tracks, CodeDay Labs helps students pursue their CS education and career from their freshman year through graduation.

#### **3,700** students to date

**48** cities worldwide 68% underrepresented

labs@codeday.org







labs@codeday.org

<!doctype html> <html> <head> <title>AppCo</title </head>

### One mentor + oпe project + three students.

We recruit, train, and support students and mentors as they work together to complete a project.

Partner colleges and universities recieve guaranteed admission for their students, reporting, and career services so your students can meet educational goals and grow their professional network.

In past years, virtual interns have created everything from AI healthcare apps to crop automation hardware.

Pictured: Adam Ryman (SDE @ Glympse); Mae H., Christopher B., Ryan R.





### Three experience tracks support students throughout college.



March, or April.



### We have а ргоvеп history of сагеег соппесted learning.

Through our online programs, we've helped thousands of students learn real-world skills, like:

- Agile Development
- Devops
- Kubernetes
- IoT Hardware Development
- Design for Manufacture
- Game Development
- Mobile App Development
- Cyber Security
- Big Data Processing
- Machine Learning
- React
- REST and GraphQL

"I loved being able to work as a team and gain real world experience about coding but at the same time also having the opportunity to learn something new."



Kelly Dong Advanced Track

"I began my CodeDay Labs internship with no background in using React Native, but came out of this internship knowing the ins and outs of React Native thanks to my team and my mentor, Eric."



Vivian Wang Beginner Track

"It was my first time working on a project that involved completing small tasks and putting them all together at the end to create the final product. It was very eye-opening."



Xoshil Chen-Marquez Intermediate Track

labs@codeday.org

"Being a Venezuelan immigrant, Labs was the first time that I got true exposure to a community of tech people that I could rely on. Fast forward a couple of years and now I'm three and a half months away from graduating college and have a job as a SWE at the Microsoft HQ right after I graduate."



Daniel Lobaton Intermediate Track

"At the beginning of the internship, because I only had experience with ReactJS, I thought I would only be working on the frontend component of the app which we built. However, I ended up only working with ReactJS for about a week before I became responsible for the backend. I'm really glad I got this exposure because I found that I enjoy working with backend-related stuff."



Amy Ghotra Advanced Track





**State Farm**<sup>®</sup>



T-Mobile Microsoft













ber





labs@codeday.org

e<sup>®</sup> **PayPal** 

## FACEBOOK

**ly**A

CodeDay Labs projects are mentored by developers from hundreds of the best-known companies around the world.

national and local

Projects with

every major

employer.

Whether it's a Netflix engineer mentoring a cross-platform MERN application on AWS, a SAP employee mentoring a custom machine learning deployment, or an Uber Elevate employee mentoring contributions to an open-source project, your students get real-world experience from leaders on the front lines.

splunk>

SONOS





### All projects meet the following educational requrements:

	Core Competencies	
1. Core Software Development Process	<ul> <li>A. Identifying and defining problems using debugging techniques.</li> <li>B. Online and peer research to discover existing solutions to a problem.</li> <li>C. Experimentation; learning by doing.</li> <li>D. Developing and evaluating a set of proposed solutions to a problem.</li> <li>E. Verifying a problem is solved.</li> <li>F. Documenting a solution for others.</li> </ul>	
2. Interpersonal	A. Working collaboratively and productively in a team. B. Individual task management in an agile workflow. C. Managing change and uncertainty.	
3. Management, Technical Leadership, and Cross-Functional	A. Requirements gathering. B. Technical speaking and presentations.	

4. Technical
 A. Software and/or hardware architecture.
 B. OOP and/or functional programming.
 C. Testing and quality assurance.
 D. Creating/refactoring and documenting code in a reusable manner.
 E. Setting up and using modern development environments.

#### **Advanced Competencies**

(n/a)

• Technical Writing

- Systems thinking and architecture design.
- Project management.
- Speaking with customers and incorporating feedback into project planning. (Customer development).
- Risk management.
- User interface design.
- Busines needs analysis/business case justification.
- User analytics and data-driven design (data tracking, A/B testing, funnel and cohort analysis).
- Statistics and data analysis.
- Discrete mathematics.
- Machine learning.
- API architectures, tradeoffs, and design.
- Consuming APIs.
- Cloud deployment and/or system administration.
- Containers and/or orchestration. (e.g. Docker, Kubernetes, ECS, GKS)
- Event programming. (e.g. Kafka, RabbitMQ)
- Evaluating and improving system performance.
- Algorithm design and development.
- Distributed systems.
- Data modeling.
- Database design and development.

Although projects are proposed by mentors, we work with each mentor individually to ensure their projects will meet educational requirements.

All tracks include all *Core Competencies.* Additionally:

- Init projects incude no Advanced Competencies.
- Intermediate Track projects include 1-3 *Advanced Competencies* (at least 1 which is Technical).
- Advanced Track projects include 4+ Advanced
   Competencies (at least 3 which are Technical).



### Program Cost

#### Init

#### \$1,200\*/student (min 6)

Sponsor a block of students for guaranteed placement in our 4-week program.

 $\checkmark$  Admission for students in the major.

- Weekly performance evaluations, student check-in evaluations, final mentor impressions (including areas for improvement).
- $\checkmark$  AI flagging of students w/ problems.
- $\checkmark$  TA support for coding help.

 $\checkmark$  Onboarding week.

#### Intermediate/Advanced

#### \$1,600\*/student (min 6)

Sponsor a block of students for guaranteed placement for an extended 9-week program.

- requirements.

- $\checkmark$  TA support for coding help.
- $\checkmark$  Onboarding week.
  - credit-earning).

labs@codeday.org

 $\checkmark$  Admission for students who meet

Weekly performance evaluations,

student check-in evaluations,

final mentor impressions (including areas for improvement).

 $\checkmark$  AI flagging of students w/ problems.

✓ Canvas prep course (recommended if

#### \*Fees & Discounts

CodeDay Labs Intermediate/Advanced is \$1,500 for the standard 9-week program. Additional fees apply for longer programs. (CodeDay Labs Init cannot be longer than 4 weeks.)

Data is reported on the CodeDay partner dashboard. \$100/student fee applies if customized reporting is needed.

50% discount (at-cost) colleges with tuition under \$7,000 per year.

25% discount for programs with tuition under \$15,000 per year, and programs which are funded by Income Sharing Agreements (ISAs).



# **Student Admission Requirements** (Different requirements apply for product management, cybersecurity, and devops. Contact us for details.)

	Init	Intermediate Track	Advanced Track
Demonstrated passion for Computer Science (e.g. by taking classes, joining clubs, working on projects, attending events or clubs, etc.)	Required	Required	Required
Experience writing code in collaboration with others, using communi- cation and source code management tools.	Preferred	Required	Required
Can read and explain a stack trace or other error message.	Optional	Required	Required
Previous experience building complex projects (such as fully-featured apps, projects involving multiple systems or classes, etc.).	Optional	Preferred	Required
Ability to have a conversation with a peer about technical details:	Explain details of their code in response to specific questions.	Hold a 2-sided conversation about moderately abstract technical concepts with mentor guidance.	Hold a 2-sided conversation about abstract technical concepts with limited mentor guidance.
Identify when and how to apply skills learned in the classroom:	With step-by-step guidance.	With limited, structured guidance.	With minimal guidance.
Technical knowledge:	AP or first intro college CS class. Can write "fizz-buzz" level code.	Simple data structures (lists, dicts), classes, functions, loops, etc. Can read and understand code with documentation.	Data structures and algorithms. Simple use of APIs or SDKs. Can read and understand code with- out documentation.

labs@codeday.org

