## 

## 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

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## 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, early access to project bidding, and reporting, 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 their college career.



College students working on distribution requirements, with an introductory college CS class (or AP CS A).

courses.

Students admitted into the CS major who have developing CS experience through an intro series or some upper-level

ready for a traditional internship/preparing to graduate.



## We have a proven history of career connected 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

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"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>



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Projects with every major national and local employer.

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

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.





## Projects fulfill detailed educational requirements:

	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:

- Beginner Track projects incude 1-2 *Advanced Competencies.*
- Intermediate Track projects include 2-4 *Advanced Competencies* (at least 1 which is Technical).
- Advanced Track projects include 4+ Advanced
   Competencies (at least 3 which are Technical).



Practice interviews and resume feedback helps students start their job search early.

Interviewing is a skill which is easily taught, but hard for students to master without regular practice.

CodeDay Labs is designed to prepare students for the job search process from start-to-finish, with daily opportunities to receive resume feedback or take a practice interview with recruiters, hiring managers, PMs, HR professionals, and others involved in the hiring loop.



**Charles Allen** Human Resources Director Cedrus Digital



**Greg Vannoni** Engineering Manager PayPal



Aditi Singhal Machine Learning Engineer Microsoft Azure

## Examples of Past CodeDay Labs Interview Panelists:



**Sourav Sarkar** Software Engineer II Paypal





**Rakesh Das** Software Engineer J.P. Morgan



Melissa Andrews Solutions Engineering Manager Splunk



Chad Van Derrick VP, Solutioning SAP



Shawna Huang Software Engineer Stripe



**Stephen White** Software Developer State Farm



**Nadia Foucher** Director of Operations SAP



Revati Kapshikar **Product Manager** Uber



Larry Zhao Software Engineer MathWorks

. and many, many more!



## Daily talks and lunches help students learn industry practices and build their professional network.

## Examples of previous year's talks:

#### **Expert Lunch**

### College New Grad Hiring Demystified

Erwin Chan Former Amazon Sr. Recruiter

#### Career Talk

Our First Day (as a PM, Developer, and QA)

Prehistoric Computing,

Don Mitchell Founder, NG-911

**Expert Lunch** 

1960s-1970s

Maria Sughars

Former Bell Labs

#### **Tech Talk**

#### Building a NLP/Machine Learning Model in 5 Steps

Prithvi Shetty Data Scientist, SAP Concur

#### **Expert Lunch**

#### Technical Audio Design

Colin Vandervort Freelance Technical Designer

## **Tech Talk**

### CI/CD for Machine Learning Models

Aditi Singhal ML Engineer, Microsoft Azure

#### **Career Talk**

Interviewing as an EnterpriseArtificial Limbs, SurgerySoftware EngineerRobots, and More!

Kai Ruan Application Engineer, Google

#### **Tech Talk**

### The Invisible Code - Data Engineering in 2020

John Ramirez Data Engineer, RTS Labs

#### **Career Talk**

#### Startups and Raising Money Find Your Cardboard Box (in a COVID World)

Cameron Borumand Partner, Ignition VC

#### **Expert Lunch**

Dr. Blake Hannaford University of Washington

#### **Expert Lunch**

20 Years of Game Dev Revealed!

Steven Stadnicki Sr Software Engineer, DreamBox

#### Career Talk

17 Tips for Working in Tech

Nicole Steinbok Senior PM Lead, Microsoft

#### Tech Talk

#### Big Data Journey and Solving Real World Problems

Arjuna Chala Sr. Director Emerging Tech, HPCC

#### Tech Talk

#### Software Testing: Trust Through Verification

Mo Hijazi DevOps, Bishop Fox

#### **Career Talk**

Chris Dermody Head of Product, Flipdish

#### **Tech Talk**

#### An Introduction to Containerized Deployment

Michael Kalish Principal SDE, Learning Objects

#### Career Talk

You Should Make Things!

Tommy Nicholas CEO, Alloy

#### Career Talk

#### Career Progression for New Grads With Zero Experience

Nikhil Mungel Sr. Engineering Manager, Splunk





# Funding from school partners lets us provide additional, guaranteed spots for their students:

## Sponsored 6-Week Admit

## \$450/student

Sponsor a block of students for guaranteed placement in our 6-week program.

- Provides guaranteed access to students meeting admission criteria.
- Access to practice interviews and resume feedback.
- Weekly performance evaluations, final mentor impressions (including areas for improvement) and notes from practice interviews.
- $\checkmark$  4 years of access to jobs portal.

Sponsored	12-We	ek Ad	mit

## \$550/student

Sponsor a block of students for guaranteed placement for an extended 12-week program.

- Provides extended 12-week program for student meeting criteria.
- Access to practice interviews and resume feedback.
- Weekly performance evaluations, final mentor impressions (including areas for improvement) and notes from practice interviews.
- $\checkmark$  4 years of access to jobs portal.
- $\checkmark$  Priority access to project bidding.



# For school-funded spots, schools may select any students meeting these minimum track requirements:

	Beginner Track
Demonstrated passion for Computer Science (e.g. by taking classes, joining clubs, working on projects, attending events or clubs, etc.)	Required
Experience writing code in collaboration with others, using communi- cation and source code management tools.	Preferred
Can read and explain a stack trace or other error message.	Optional
Previous experience building complex projects (such as fully-featured apps, projects involving multiple systems or classes, etc.).	Optional
Ability to have a conversation with a peer about technical details:	Explain details of their coc response to specific questi
Identify when and how to apply skills learned in the classroom:	With step-by-step guidar
Technical knowledge:	AP or first intro college CS o Can write "fizz-buzz" level

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	Intermediate Track	Advanced Track	
	Required	Required	
	Required	Required	
	Required	Required	
	Preferred	Required	
de in tions.	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.	
nce.	With limited, structured guidance.	With minimal guidance.	
class. 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.	





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# **CodeDay**<sup>®</sup>

Let's talk: labs@codeday.org