CodeDay Labs: A Virtual, Open-Source Internship Program

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CodeDay

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.

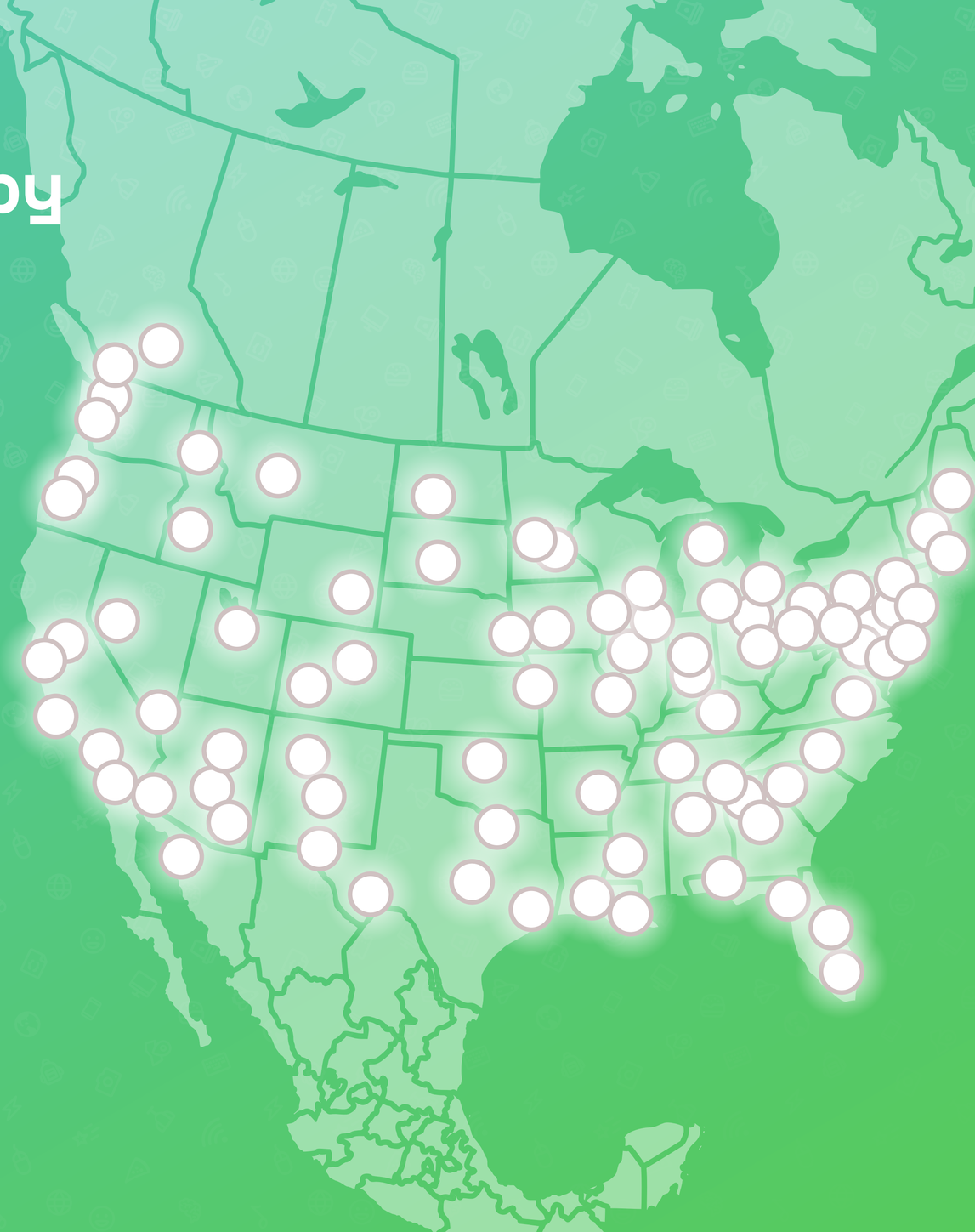
During CodeDay Labs, students work with a mentor from the technology industry to build an open-source project to solve a real-world need. Along the way, they attend tech talks and expert lunches, and prepare for their job search with practice interviews and resume feedback.

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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CodeDay®

One mentor + one 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.

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

CodeDay

Three experience tracks support students throughout their college career.

Beginner Track

Goal:
Increase CS enrollment by showcasing the creativity and power of the field through near-peer mentorship and engaging real-world projects.

The mentors:
College students who have prior internship experience with leading technology companies.

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

Intermediate Track

Goal:
Build real-world connections to existing knowledge and **prepare for upper-level courses** through industry mentorship on real-world open-source projects.

The mentors:
Professional software engineers for leading technology companies.

The students:
Students admitted into the CS major who have developing CS experience through an intro series or some upper-level courses.

Advanced Track

Goal:
Replicate an internship-style experience for students who do not receive an offer.

The mentors:
Professional software engineers for leading technology companies.

The students:
Students with significant upper-level coursework who are ready for a traditional internship/preparing to graduate.

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CodeDay

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

"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

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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.

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Projects fulfill detailed educational requirements:

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

CodeDay

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.

Examples of Past CodeDay Labs Interview Panelists:

Charles Allen
Human Resources Director
Cedrus Digital

Sourav Sarkar
Software Engineer II
Paypal

Chad Van Derrick
VP, Solutioning
SAP

Nadia Foucher
Director of Operations
SAP

Greg Vannoni
Engineering Manager
PayPal

Rakesh Das
Software Engineer
J.P. Morgan

Shawna Huang
Software Engineer
Stripe

Revati Kapshikar
Product Manager
Uber

Aditi Singhal
Machine Learning Engineer
Microsoft Azure

Melissa Andrews
Solutions Engineering Manager
Splunk

Stephen White
Software Developer
State Farm

Larry Zhao
Software Engineer
MathWorks

... and many, many more!

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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

Tech Talk
Building a NLP/Machine Learning Model in 5 Steps
Prithvi Shetty
Data Scientist, SAP Concur

Career Talk
Interviewing as an Enterprise Software Engineer
Kai Ruan
Application Engineer, Google

Expert Lunch
Artificial Limbs, Surgery Robots, and More!
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

Career Talk
Our First Day (as a PM, Developer, and QA)
Don Mitchell
Founder, NG-911

Expert Lunch
Technical Audio Design
Colin Vandervort
Freelance Technical Designer

Tech Talk
The Invisible Code - Data Engineering in 2020
John Ramirez
Data Engineer, RTS Labs

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
You Should Make Things!
Tommy Nicholas
CEO, Alloy

Expert Lunch
Prehistoric Computing, 1960s-1970s
Maria Sughars
Former Bell Labs

Tech Talk
CI/CD for Machine Learning Models
Aditi Singhal
ML Engineer, Microsoft Azure

Career Talk
Startups and Raising Money (in a COVID World)
Cameron Borumand
Partner, Ignition VC

Career Talk
Find Your Cardboard Box
Chris Dermody
Head of Product, Flipdish

Tech Talk
An Introduction to Containerized Deployment
Michael Kalish
Principal SDE, Learning Objects

Career Talk
Career Progression for New Grads With Zero Experience
Nikhil Mungel
Sr. Engineering Manager, Splunk

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CodeDay

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.
- 4 years of access to jobs portal.

Sponsored 12-Week Admit

$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.
- 4 years of access to jobs portal.
- Priority access to project bidding.

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

	Beginner Track	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 communication 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 without documentation.

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Let’s talk: labs@codeday.org