#INCLUDE

FELLOWSHIP PROGRAM by she++

#include Fellowship Launch Kit

Welcome to the *#include Fellowship* Program!

Thank you for your interest in the #include Fellowship Program. This is your **Launch Kit.** Use it as a resource as you embark on a journey into the world of technology and computer science. There are some starting ideas and tips here for #include projects, but you should take this opportunity to be creative. If you are passionate and excited about what you are doing, that will shine through and prove impactful.

Best of luck,
she++ & the #include Fellowship Team

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I. LETTER FROM THE DIRECTORS

Hi there!

We are so excited to have you participate in this year's #include Fellowship Program. she++ started this program in 2013 in order to empower high school students to bring tech education and opportunities to their local communities while cultivating their own technical skills. Now it is your turn to make an impact and to share your passion for Computer Science.

In just two short years, our #include Fellows have taken the tech world by storm. They have held robotics camps in Costa Rica, taught web development in Cambodia, and brought 100 low income Latino students from East Salinas to Stanford University. They have built hydroponics farms, organized hackathons, and orchestrated paperless choirs.

In celebration of the fellows who have embraced the interdisciplinary nature of CS and expanded its reach to underrepresented communities, this year's theme is **broadening horizons**. We challenge you to create initiatives that stretch the boundaries of what CS can do and who is capable of doing it. You have the potential to powerfully impact the tech industry by increasing diversity and pursuing your passions!

You don't have to be a coding expert in order to make a difference through technology. We hope you will take this as an opportunity to learn along with the people you want to impact.

Remember that you are not alone in this journey. We are here to support you as you take on this challenge — and so are your #include advisor, the #include mentors, and a vibrant, passionate community of your fellow #include participants.

We can't wait to see what you will accomplish. Good luck and reach for the moon!

Cindy and Ngoc, #include Co-Directors

How does the *#include Fellowship* Program work?

The #include Fellowship is designed to help you accomplish two things: create your #include initiative and learn more about engineering and the tech industry.

YOUR INITIATIVE >> #include SUMMIT >> CONTINUED IMPACT

Now that you've received your launch kit, you'll spend the next few months working on your **#include initiative**. This can be anything that promotes computer science or technology in your community. Think about how your initiative can contribute to empowering underrepresented groups in technology, help dismantle negative stereotypes, and engage a diverse range of participants. Sections **II. Getting Started** and **III. Building Your Initiative** will go into further detail about ideas, funding, and execution.

In January, applications will open for the **#include Summit**. You will complete a written application and interview with members of the she++ team. If selected, we will fly you out to the Silicon Valley, where you will visit companies like Facebook and Google, tour the Stanford campus, and meet prominent technologists like Sheryl Sandberg!

The #include Fellowship does not require you to have any prior technical experience. However, we encourage you to use this opportunity to begin or continue exploring the field of technology. We hope that you will be a participant in – as well as an organizer of – your #include initiative! Section **IV. Resources** of this Launch Kit contains learning resources for programming, and our extensive mentorship team will be available to answer any questions along the way.

Eligibility Requirements

The eligibility requirements to apply to attend the #include Summit are as follows:

- **Currently enrolled in high school, or home-schooled at the high school level, with the intention of receiving a high school diploma or completing the GED within the next four years.**
- **Reside in the United States, Puerto Rico, U.S. Virgin Islands, or other U.S. territories.**
- **Planning to pursue further study at a post-secondary institution.**

If you meet these requirements, you are invited to apply to attend the #include Summit, which will take place in Spring 2016.

TIMELINE OF IMPORTANT DATES

2015

November 2015

Official #include Fellowship Program Start

Participants receive Launch Kits, set up initial meetings with college advisors

November to December 2015

Program Period

Participants meet with advisors, communicate with mentor team, participate in Q&A sessions

2016

January 4, 2016

#include Summit Applications Open

she++ website, 12:00 AM

The application will include a short essay discussing what community outreach project you did, why you did it, and why you think it was impactful.

January 29, 2016

#include Summit Applications Due

she++ website, 11:59 PM

Early February 2016

Interviews

Semi-finalists invited to conduct video interviews with members of the she++ team

Late February 2016

Final Decisions Released

March 30 to April 1, 2016

The 2016 #include Summit!

SHE ++

#INCLUDE SUMMIT

The culmination of the #include Fellowship Program is the #include Summit. 20-30 participants who have exhibited exemplary work in their initiatives will be selected, through their written applications and interviews, as the 2016 #include Fellows. They will be flown out for an all-expense paid trip to Silicon Valley, where they will meet industry leaders, experience the life of an engineer, and present their work at the she++ Gala, a celebration of movers and shakers in technology.

Here are some highlights from last year's Summit!

Fellows show some she++ pride as they tour the Google campus ->

Natural language processing talk by Stanford Professor Dan Jurafsky

<- Enjoying the Stanford sunshine

Meeting Sheryl Sandberg at Facebook HQ

Workshop with D.E. Shaw Research

VMware mentorship dinner

Pejman Mar Ventures hosts a design thinking workshop, judged by Pejman and Mar themselves ->

Who are #include Advisors and Mentor Team?

As a #include Participant, the entire #include community is at your disposal. We have put together a multifaceted mentorship program to ensure you have all the guidance you need to make the greatest possible impact in your community.

#include College Advisors

At the beginning of the Program Period, you will be paired with your #include College Advisor. Your advisor is a college student majoring in a technical field. Advisors are there to give you one-on-one advice. Ask them about getting started with programming, planning out your initiative, applying for the #include Summit, and more.
You should meet with your advisor at least twice a month for the duration of the program.

#include Mentor Team

While our advisors are talented and knowledgeable, most of them have never experienced first-hand the process of building a #include initiative and bringing it to life. We have gathered an all-star team of past #include Fellows and notable women in tech to answer some of your tougher questions.
You will communicate with the mentor team on our Piazza forum. Visit the link below and enter the access code when prompted to enter the forum, which has an online classroom structure. You can ask questions as "students", and our mentors will answer them as "instructors."

Forum link: www.piazza.com/she/other/incl1516
Access code: poundinclude

Q&As and AMAs

We want the #include Fellowship Program to be as stress-free and rewarding a process as possible for you. We encourage you to join the #include Participants Facebook group and follow @sheplusplus on Twitter. Our periodic Q&A and AMA (Ask Me Anything) sessions, during which you will get an opportunity to have your questions answered live by the #include organizing team, will be held using these platforms.
The dates of these sessions are below, and will also be announced through email/Piazza as the dates approach:

November 19, 2015 6:00 PM PST
December 3, 2015 6:00 PM PST
January 16, 2016 10:00 AM PST
January 24, 2016 5:00 PM PST

Advancing Your Technical Skills

There are a variety of online resources out there that can help you develop your programming abilities. Don't worry about memorizing how to do something in that language, because not even professional programmers have all of the Java/C++/Python syntax and libraries memorized! What's more important is learning about the programming concepts and ideas.

If you get stuck on how to do something, Google it or ask your #include advisor! *Stackoverflow.com* is another great resource. If it seems hard at times, just remember to keep at it and think of all the amazing things you will be able to accomplish with CS!

How to learn more about programming

UDACITY
udacity.com

Study CS101 at your own pace and discover the magic of programming.

CODEHS
codehs.com

Learn simple programming with Karel the Dog and move on to a curriculum of step-by-step tutorials, videos and exercises. CodeHS also provides online tutors if you get stuck.

LEARN PYTHON THE HARD WAY
learnpythonthehardway.org/book

Don't let the name fool you! Learning Python can be fun, and this online book takes you through multiple exercises to teach you the language.

CODE.ORG
code.org

Check out this non-profit dedicated to expanding participation in computer science by making it available in more schools.

CODE ACADEMY
codeacademy.com

Code Academy has many courses designed for beginners to help teach you a language as well as the fundamentals of programming.

KHAN ACADEMY
khanacademy.org

Khan Academy has a series of web videos to help you learn their programming language. Make animations, simulate games and discover the logic behind programming.

SCRATCH PROGRAMMING
scratch.mit.edu

Learn programming through a visual drag and drop interface. Great for total beginners to play around with. There is also a large community to share your projects with online.

CODINGBAT
codingbat.com

If you already know a little bit of Java or Python, but you want to practice, this is a great resource.

TOUCHDEVELOP
touchdevelop.com

Make Windows 8 apps straight from your phone or computer! With a mobile optimized website, TouchDevelop makes it easy for users to make apps while playing around on their phones. It has some starter files for inspiration, as well as a community to share your apps with or ask questions. Check out the getting started page if you're new to programming.

KIDSRUBY
kidsruby.com

Learn Ruby programming through an environment made for kids. Enjoy adorable graphics as you learn this powerful programming language.

MICROSOFT VIRTUAL ACADEMY
microsoftvirtualacademy.com

Pick up a programming language through Microsoft's Virtual Academy, with a variety of topics for beginners to advanced programmers.

ORACLE ACADEMY
academy.oracle.com

Provides a self-study curriculum that teaches coding using Alice, Greenfoot, and Java.

IV. BUILDING YOUR #INCLUDE INITIATIVE

What's a #include initiative?

A #include initiative is any sort of structured event, activity, or group designed to spread awareness or knowledge about tech or tech education in your community.

1 Identify the resources already present in your community

Check out what sort of resources your community already has. Does your library have a computer class? Is there an engineering lab in your city? Take a look at who uses those resources and think about how existing programs could possibly be improved or expanded upon.

2 Find a need

Figure out what resources your community lacks. What events or resources do you wish were present in your community? Or are there resources within your community that some people don't have access to? Find a need, and address it with your initiative!

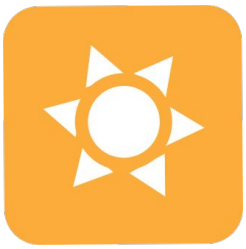
3 Pick a target audience

Do you want to work with elementary school students? High school students? Senior citizens? Think about if there is a group in your community that could benefit from learning about tech. Maybe the elementary school's after-school program could use some simple engineering activities, or the nonprofit down the road could use a web development class to learn how to take their efforts to the web. Once you have an audience, you can customize your initiative to meet their needs!

Finding Inspiration for Your Initiative

The next pages provide some ideas for this years theme:

Broadening horizons.



Computer science and engineering are becoming increasingly interdisciplinary fields. We'd love to see your take on the interdisciplinary nature of CS through an initiative that uses tech to explore your diverse interests. While we've explored just a few different fields, feel free to look into whatever field you want. Be bold, be creative, and show everyone that computer science isn't just about typing at a keyboard!

var change = CS + yourPassion;

var yourPassion = Art *or* Music *or* Medicine *or* Education *or* Environment *or* Community Service;

COMBINE YOUR PASSIONS

Computer science and engineering are becoming increasingly interdisciplinary fields. We'd love to see your take on the interdisciplinary nature of CS through an initiative that combines your interests with CS and tech outreach.

CS + Art

ANIMATE

Start a Pixar or Dreamworks at your school! Form a club for students interested in film and animation and start making cinematic magic happen. Consider submitting your work to the FIRST Robotics Safety Animation Contest or other film festivals!

CS + Community Service

BRIDGE

Bridge the technology gap and host workshops that teach essential computer science skills to members of your local community and to people who otherwise would not have access to that technology. Examples can include involvement with nursing homes, homeless shelters, special-needs institutions, and under-funded areas and schools.

CS + Medicine

CONNECT

Start a group that works to increase access to clinics/doctors via online interfaces! Nowadays, especially in underdeveloped countries, mobile technologies can play a huge role in connecting rural areas to quality, timely medical attention.

CS + Environment

TEACH

Teach classes that combine tech and the environment – for example, digital conservation photography and photo editing! Utilize photos, videos, and discoveries you've made in an effort to generate environmental awareness.

CS + Music

ORCHESTRATE

Music has always been at the cutting edge of technology. Introduce people to using modern tools and software as a means of creating music in a conventional musical context by forming a laptop orchestra group in your school or community.
(Look up the SLOrk or "The DIY Orchestra of the Future" TED talk for inspiration!)

Past #include Outreach Initiatives

While technology may seem to be everywhere, there are still individuals who, unfortunately, do not have access to CS or CS education. Think about whether there are people in your school or neighborhood who may be facing this issue and how you can tackle it with your initiative. You might change someone's life by simply giving them an opportunity to explore CS!

Here are eight initiatives from last year's #include program to give you an idea of the ways you can make an impact!

Marleni Chavana - Coding Connections

Created a curriculum to teach programming to students in her district, which is "an urban area where most students come from homes where internet access isn't always available". To overcome this, the curriculum uses online resources, making it completely free.

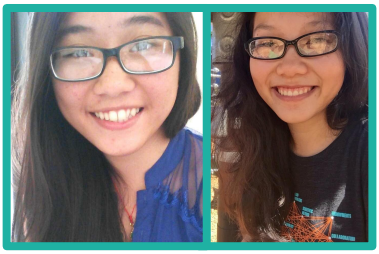
Valerie Chen - STEM4Kids

"STEM4Kids introduces elementary school students from low-income families to the STEM topics through engaging demonstrations and fun hands on experiments to break the cycle of poverty."

Uma Krishnan - KhodeUp

Uma founded a nonprofit to teach web development fundamentals to orphans in Cambodia. Back home, she also created a Girls Who Code club to "[get] teens, who otherwise wouldn't have the opportunity, into Computer Science".

Joanna Luo & Michele Wu - BuildCS



Inspired by the Girls Who Code Summer Immersion Program, Joanna & Michele started a GWC club at their school in addition to a Google CS-First Club at a middle school. Their aim was to "inspire underrepresented minorities and help bridge the gap in the field of computer science".

Mackenzie McClung - (CS)^2

CS^2, which stands for "Computer Science in Community Service", empowers students to use their technical skills to address problems in their school and community. The group has, notably, "[updated] outdated technology for organizations for under-served kids" and "[created] a 'Paperless choir -- green CS project".

Mariela Pizarro-Silva - Conference @ Stanford for Low-income Latino

Partnering with Stanford's Society of Women Engineers, Mariela organized a technology conference for 100 low income Latino students. The attendees also got to participate in the Silicon Valley Latino Leadership Summit and the Latinas Think Big Innovation Summit.

Hannah & Rachael Tipperman - Robot Springboard

Robot Springboard is a nonprofit that provides "robotics and computing opportunities to underserved communities" in the US and Costa Rica. Hannah & Rachael fundraised for kits and learning materials, worked with Intel to run a workshop in Costa Rica, and created a Spanish workbook.

FINDING FUNDING FOR YOUR INITIATIVE

If your #include project looks like it's going to require some funding, here are some ideas that can help.

Talk to your principal, teachers or parents about any funding opportunities from your school

Throw a bake sale
Run a car wash
Host a fundraising event

Look for nonprofits doing similar outreach

Discuss whether they can support you in any way

Look for grants in STEM education/outreach

INDIEGOGO

Pitch your idea on the platform to generate awareness and funding for your idea.

V. SPREADING THE WORD

The best projects are not accomplished alone. Try to find people, groups or organizations that can help you reach your goals. Are there other people who share a similar mission? See if you can collaborate, combine forces, or seek advice. Here are some ideas to get you started.

Sharing with Your Community

We want your initiative to reach as many people as possible, so be sure to think about ways in which you can let your community know about your initiative -- and how they can get involved!

FLYERS

Post flyers around your school, community centers, and libraries. Ask teachers and community members to forward the flyer to their contacts. Contact local businesses for their help in spreading the word.

WORD OF MOUTH

Sometimes the best the way to get the word out is by letting your friends know what you are working on and asking them to tell all their friends!

LOCAL MEDIA

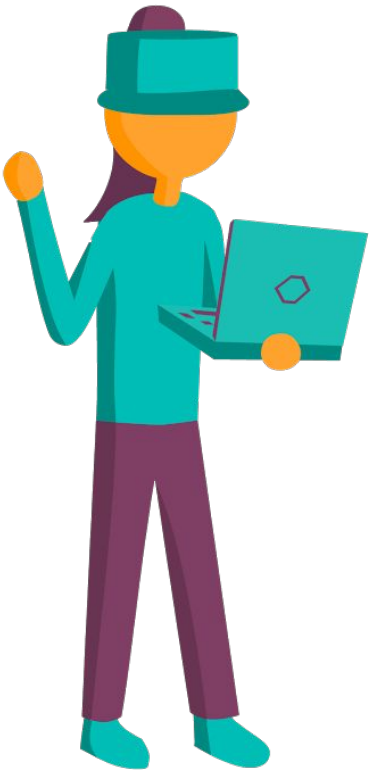
Reach out to local newspapers, local television stations, radio stations, and magazines. Ask if they are interested in sharing a story about the impact of your work.

SOCIAL MEDIA

Utilize the social media sites you are familiar with like Facebook, Twitter, Tumblr, and Instagram.

BLOG

Write a blog post or article and publish it online. Think of different ways that you can reach people and the type of audience you want to address. You can post on a personal or community blog, publish to sites such as Medium, or ask a school newspaper to include an article about your work.



Good Luck!

If you have any questions, contact the #include Fellowship Co-Directors Cindy Wang (ciwang@stanford.edu) and Ngoc Bui (nbui17@stanford.edu).

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