



PROJECT-BASED TECHNOLOGY BOOTCAMP FOR SOCIAL IMPACT

Spring 2022 - 2 Credits

□ Contact Information

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Raffi has been involved in the IT field for the past 30+ years. He started his career at Bechtel Corporation as a software engineer and has led large and small groups of software developers at such companies as SQRiBE Technologies (now Oracle), The Walt Disney Company, Candle Corporation (now IBM), DeskTalk (now HP), SeeBeyond (now Oracle) and Xdrive (now Verizon).

Raffi has taught software programming courses at CSUN and UCLA since 1987. He has also done software consulting and training at Northrop Grumman, UCLA, Paramount Pictures and numerous startups. Raffi holds a Bachelor of Science degree in Math/Computer Science from UCLA and an Executive MBA from Pepperdine University.

Currently, Raffi is a Senior Program Manager for Innovate@UCLA at UCLA's Office of Advanced Research Computing where he manages the entire operation of the program including organizing tech bootcamps for undergraduate and graduate students utilizing the Google Ventures Design Thinking framework. Raffi is also an Advisory Board Member for UC Riverside's Extension Design Thinking Executive Program as well as a judge, advisor for Technovation Girls Armenia.

Raffi is keen on workforce development focusing on the areas of Digital Skills, Business Skills and Human Skills. He helps companies recruit college students who have already completed the "Design Thinking" tech bootcamps and become certified as "professionally ready" in the areas of ideation, critical thinking and problem solving.

To learn more, visit Raffi's Wiki page at: <https://bit.ly/raffi-simonian> as well as his Career Coaching website at <https://www.raffi-simonian.com>

□ Description

This course develops the next generation technology workforce by educating undergraduate and graduate students on business and technical skills that are necessary to succeed in the real world. Students engage in a 6-week hands-on bootcamp augmenting their academic curriculum with digital using the Google Design Thinking framework and core, professional skills, such as UI/UX, project management, data analytics, conflict resolution and more. Students learn how to collaborate and work in diverse teams led by industry coaches who guide them through the process of ideating, validating and refining their solutions, to a final Minimal Viable Product (MVP), and finally presenting their solutions to industry judges during a pitch competition.

Open to undergraduate and graduate students, the bi-annual YTP Tech Bootcamps are designed to accelerate this growth in the areas of:

Digital Skills: UI/UX, cloud, AI/ML, data analytics

Business Skills: project/product management, agile framework, how to pitch

Human Skills: problem solving, social impact, emotional intelligence, conflict resolution

Students are provided real-world problems to solve through student teams. In our Fall 2019 program, we partnered with the Los Angeles County Office of the CIO to address three real-world challenges, including homelessness, food inspection safety, and wildfires. Students are connected with industry coaches (including Alums) who mentor and guide them weekly through the process of developing an MVP. Students are further supported by exposure to industry leaders in both the public and private sector to learn about roles in technology and potential internships or full-time employment opportunities. Students are exposed to various employment opportunities in technology including those students who don't have STEM backgrounds but are eager to be part of the tech workforce. Students accepted into this program come from a variety of backgrounds, mainly, STEM, and are selected using a blind resume review process in order to help remove bias and diversify participants.

□ Materials

Recommended Resources:

[Bootcamp Portal, Testimonials and Curriculum](#)

[Google Ventures Design Thinking Framework](#)

[The Sprint Book](#)

[How to Conduct Your Own Google Design Sprint](#)

[Design Kit](#)

□ Weekly Topics and Course Assignments

Week	Activities	Time Commitment	Learning Goals	Homework
0 (Student Orientation)	<ul style="list-style-type: none"> Welcome Remarks & Introductions History of YTP Tech Bootcamps Tips & Guidelines Diversity of Students (Major and Year) 	1.5 hours	N/A	<ol style="list-style-type: none"> Each team to decide on a name Accept Slack invitations Visit http://ytp.ucla.edu regularly for all updates
1	<p>Opening Remarks & Activities (55 mins):</p> <ul style="list-style-type: none"> Welcome all students, introduce format and Confluence page (15 mins) Introduce Coaches, Session Expert & Session Speaker (10 mins) Session Presentation (30 mins) Break Out into Teams <p>Team Hands-on Assignment (65 mins):</p> <ul style="list-style-type: none"> Teams develop idea with coaches. Expert is available for interview (60 mins) Wrap-up & Next Steps (5 mins) 	<p>2 hours in-class time</p> <p>2-3 hours team work offsite</p>	Day 1: Understand Dig into the design problem through research, competitive review, and strategy exercises.	<ol style="list-style-type: none"> Outline On Concept Board (Off Site) The desired outcome of the solution - (Goal) The Actors/Players/Customers in the solution The Events needed to reach the desired outcome (Happy Path - (Hero Epics) Assuming everything fails what can go wrong does go wrong, create a list of these issues. Create a How Might We sticky note for each item on the list on the concept board. Give each How Might We a Unique Code, like G378. Here is an example - A34 : How might we be able to obtain the right to access customers medical history? Arrange the How Might We notes into Themes or Groups. Be Prepared to Review the Happy Path map and the How Might We questions with your Mentors / Experts Week 2 at UCLA

				<p>8. Be Prepared to Vote on the most important "How Might We" questions. Do not share your thoughts until you are on site at UCLA. Everyone will have two votes except for the Product Owner they will have 4 votes.</p> <p>9. Submit team names</p>
2	<p>Activities (35 mins):</p> <ul style="list-style-type: none"> • Introductions and Announcements (5 mins) • Session Presentation (30 mins) • Break Out into Teams <p>Team Hands-on Assignment (80 mins):</p> <ol style="list-style-type: none"> 1. Review Happy Path with Mentors and Experts 2. Review How Might We Questions 3. Vote on How Might We Questions (keep it secret): 4. Each team member has 2 votes except for the Product Manager they will have 4 votes. 5. Put on to or Create a new concept board. Combine the winning How Might We Questions onto the Happy Path Map. 6. Identify the most important Actor and Area of the map – this is the teams MVP. <ul style="list-style-type: none"> • Wrap-up & Next Steps (5 mins) 	<p>2 hours in-class time</p> <p>2-3 hours team work offsite</p>	<p>Day 2: Diverge Rapidly develop as many solutions as possible.</p>	<ol style="list-style-type: none"> 1. Each team member should prepare for a 3 Minute Pitch on the Solution for the MVP based on their experience. Sketch a rough outline of the solution prior to your presentation. (Can be a picture of a note, concept board or draw.io to shared over Web Ex) 2. The pitches will be done over the week during the daily stand ups. 3. After the pitches each team member should create the following (individual team member activity). <ol style="list-style-type: none"> 1. A list of the most promising concepts in the pitches. 2. Create a remixed version of the ideas based on the most promising pitches. 3. Be prepared to bring your pitch and combined materials to Week 3
3	<p>Activities (35 mins):</p> <ul style="list-style-type: none"> • Introductions and Announcements (5 mins) • Session Presentation (30 mins) 	<p>2 hours in-class time</p> <p>4-5 hours team work offsite</p>	<p>Day 3: Decide Choose the best ideas and hammer out a user story.</p>	<ol style="list-style-type: none"> 1. During the following week we will take 3 minutes to talk through the pros and cons of each storyboard cell tagged/voted for. (maximum of 3 per day)

	<ul style="list-style-type: none"> • Break Out into Teams <p>Team Hands-on Assignment (80 mins):</p> <ol style="list-style-type: none"> 1. Each team member will Individually create a Crazy 8 on a concept board (4-by-4 grid where each cell represents a scene in the remix of the pitches). 2. Each team member should create a 3-part story board based on three events that must happen for the solutions success. 3. The team will review all the story boards. 4. Each team member will have 20 votes to tag the best story board cells. <ul style="list-style-type: none"> • Wrap-up & Next Steps (5 mins) 			<ol style="list-style-type: none"> 2. The originating team member can identify themselves after the analysis and explain why they made the decisions they made. (2 minutes)
<p>4</p>	<p>Activities (35 mins):</p> <ul style="list-style-type: none"> • Introductions and Announcements (5 mins) • Session Presentation (30 mins) • Break Out into Teams <p>Team Hands-on Assignment (80 min):</p> <ol style="list-style-type: none"> 1. The Product Owner votes on the 3 Primary Story Board Cells 2. The team should combine the 3 Story Boards into a cohesive story together. 3. The team should elaborate on the story board and start to design the solution <ul style="list-style-type: none"> ○ Use Concept Board 	<p>2 hours in-class time</p> <p>4-5 hours team work offsite</p>	<p>Day 4: Prototype</p> <p>Build something quick and dirty that can be shown to users</p>	<p>Complete the script:</p> <ol style="list-style-type: none"> 1. Identify what will be Developed, Prototyped or Mocked 2. Start to Prototype <ol style="list-style-type: none"> 1. InVision Studio / Adobe UX 2. Web Sequence Diagrams 3. draw.io

	<ul style="list-style-type: none"> ○ Use Draw.io ○ Use JIRA for Epics, Stories and Tasks <ul style="list-style-type: none"> ● Wrap-up & Next Steps (5 mins) 			
5	<p>Activities (35 mins):</p> <ul style="list-style-type: none"> ● Introductions and Announcements (5 mins) ● Session Presentation (30 mins) ● Break Out into Teams <p>Team Hands-on Assignment (80 mins):</p> <ul style="list-style-type: none"> ● Review Designs with Mentors/Experts ● Wrap-up & Next Steps (5 mins) 	<p>2 hours in-class time</p> <p>4-5 hours team work offsite</p>	<p>Day 5: Validate</p> <p>Show the prototype to real humans (in other words, people outside your company) and learn what works and what doesn't work</p>	<ol style="list-style-type: none"> 1. Continue Development 2. Test Internally 3. Prepare for 5 – 15 minute Interviews with Expert
6	<p>Activities (35 mins):</p> <ul style="list-style-type: none"> ● Introductions and Announcements (5 mins) ● Session Presentation (30 mins) ● Real time polling (5 min) ● Break Out into Teams <p>Team Hands-on Assignment (75 mins):</p> <ul style="list-style-type: none"> ● 5 – 15 minute demos with a given expert ● A single team member should conduct the interview. All other members should be silent and taking notes. ● Ask the Expert to talk about what they are experiencing 	<p>2 hours in-class time</p> <p>4-5 hours team work offsite</p>	<p>Day 6: Refine</p> <p>Utilize feedback from the Experts to refine your design and prepare for Demo day</p>	<ol style="list-style-type: none"> 1. Integrate the ideas into your solution 2. Continue development and prepare for a final 5 Minute presentation of your solution to all teams and final judges

	<ul style="list-style-type: none"> • Ask them open ended questions like <ul style="list-style-type: none"> ○ Why does that make you feel that way? ○ How could we present this feature in a better way? • Look out for patterns and ways the solution can be improved. • Review the long-term goal over the remaining time. • Wrap-up & Next Steps (5 mins) 			
7-8	Students work on their solutions off-site with their coaches and team members			
9 (Demo Day)	<ul style="list-style-type: none"> • Introduce Innovate@UCLA YTP program (10 mins) • Introduce what the group has been doing for the past 6 weeks (10 mins) • Pitches (all teams, 20 mins/team + 10 mins Q&A) 	2.5 – 3 hours	Learn how to present and pitch business value to senior executives and decision makers	

• **Grading Structure:**

Weekly Attendance	25%
Team Project	50%
Demo Day Participation	25%
TOTAL:	100%