STARTUPS AT THE FRONTLINES OF CHANGE

PRESENTED BY

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Tim Aldinger, Executive Director of Workforce Development, LaunchPath
Sabari Raja, Co-Founder & CEO, Nepris
Stephen Yadzinski, Managing Director, Acceleration, JFLabs
Introduction, JFFLabs

Acceleration Partners:

- Catalyte
- LaunchPath
- Nepris

Activity: Exploring Technology-Enabled Solutions

Team Report Out

Q&A

Survey
• Acceleration
• Incubation
• Corporate Advising
• Investment
JFFLabs works with entrepreneurs and growth stage companies to accelerate and scale their technology-based solutions.

**Identify and Select**
Great ideas, entrepreneurs, and companies who are stakeholder and mission aligned. Separating signal from noise in the market by vetting and organizing workforce and education technologies.

**Acceleration**
Leveraging JFF and JFFLabs networks, acceleration partner companies receive bespoke development support and opportunities uncommon among other accelerator programs.

**Market Engagement**
By engaging and catalyzing markets, we create value for companies, system stakeholders, and most importantly workers and employers.
ACCELERATION PARTNERS

Startups at the Frontlines of Change

• Catalyte
• LaunchPath
• Nepris
Overview

Catalyte is a software services company with a long history of successfully connecting nontraditional workers with software careers through our training and apprenticeship model

- Locations: Baltimore, MD; Portland OR; Chicago, IL; Denver, CO
- Trained and apprenticed 300+ individuals as entry-level developers and business analysts
- 44% of apprentices have no 4-year college degrees
- Our grads are aged 18 to 72, and come from a wide range of backgrounds (including retail, IT help desk, music, education, construction)
- Our software teams deliver stronger outcomes for our clients:
  - 77% increase in team productivity
  - 55% increase in code quality
  - 66% reduction in costs
Program Model

Since 2019:
Use predictive analytics to identify individuals with innate aptitude for software development

- 2-hour online screen with multiple choice questions in math/reading comprehension/logic puzzles
- 10th grade level math + reading ability
- Minimum req’s: 18+ years of age, HS diploma / GED, legal work authorization, no felonies
- 41% of people who complete the screen, pass

Trained them as full-stack developers via our 5-month free, full-time program

- 75% graduation rate
- Equivalent to two years of computer science education
- 1/3 of curriculum is soft skills training (client management, conflict resolution, teamwork, project management, communications, etc.)

Apprenticed them for two years to work on blended teams on Fortune 1000 client software projects

96% retention rate
OUR CLIENTS SAY WE DELIVER BETTER OUTCOMES THAN OUR COMPETITORS*

- **CONSISTENTLY LOWER DEFECT RATES**
  - Percent of defect rates
  - Oath: 0.2
  - Other: 0.16
  - Catalyst: 0.09

- **MORE PRODUCTIVE ON PRICE PER STORY BASIS**
  - Dollars per Agile story point
  - Oath: $510
  - Other: $1,439
  - Catalyst: $1,439

- **STRONG TRACK RECORD OF DELIVERING ON COMMITMENTS**
  - Committed work delivered & accepted
  - Nov 3: 71
  - July 4: 90

- **SURPASS COMPETITION IN CONSISTENT PERFORMANCE**
  - Percent in velocity variance
  - Feb: 41
  - Jul: 36

- **FASTER TEAM RAMP-UP TO STEADY STATE PRODUCTIVITY**
  - Sprints to steady state
  - Feb: 10
  - Jul: 6

*Data provided by Cambia Health Solutions, Starwood Hotels & Resorts & a Fortune 500 sports apparel company based in Beaverton, OR.*
**Overview:** Individuals can potentially increase their income by >3x in 6 years after joining Catalyte

<table>
<thead>
<tr>
<th>PRELIMINARY SURVEY DATA – PLEASE DO NOT CIRCULATE</th>
<th>All Catalyte Alumni</th>
<th>Catalyte Alumni with Retail / Front-Line Background</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey responses (&gt;50% response rate)</td>
<td>52</td>
<td>13 (very small sample)</td>
</tr>
<tr>
<td>% with no 4-year college degree</td>
<td>48%</td>
<td>69%</td>
</tr>
<tr>
<td>% with no IT work experience prior to Catalyte</td>
<td>73%</td>
<td>92%</td>
</tr>
<tr>
<td>Average salary prior to joining Catalyte</td>
<td>$30K</td>
<td>$35K</td>
</tr>
<tr>
<td>Average salary in first job after Catalyte</td>
<td>$86K</td>
<td>$87K</td>
</tr>
<tr>
<td>Average tenure at Catalyte</td>
<td>2.9 years</td>
<td>2.7 years</td>
</tr>
<tr>
<td>% who continued in IT careers after leaving Catalyte</td>
<td>98%</td>
<td>100%</td>
</tr>
<tr>
<td>Current average salary</td>
<td>$103K</td>
<td>$109K</td>
</tr>
<tr>
<td>Average years of IT experience AFTER leaving Catalyte</td>
<td>2.8 years</td>
<td>3.1 years</td>
</tr>
</tbody>
</table>
What if?

• A student’s college experience was threaded with integrative learning that connected their classroom experience with work-based learning?

• Employers experienced a partnership with colleges so that their rapidly changing workforce needs were immediately seen in the learning of the students?
North Star: every learner has quality work-based learning as part of their educational experience

What is LaunchPath? An online work-based learning (WBL) management platform that streamlines placement, coordination, and accountability of WBL outcomes for:

- Employer
- Intermediary
- School/Program
- Learner/Seeker
- District
- Administrator
WBL Activities in LaunchPath

Career Awareness
- Learning ABOUT Work
  - Guest Speaker
  - Worksite Tour

Career Exploration
- Learning ABOUT Work
  - Informational Interview
  - Job Shadow

Career Preparation
- Learning THROUGH Work
  - Student Job
  - Internship
  - Project Feedback
  - Mentoring

Career Training
- Learning FOR Work
  - Internship
  - Teacher Externship
  - Job
  - Apprenticeship
LaunchPath In Use

6,419 WBL Experiences

San Diego County
City of Sacramento
City of West Sacramento
Sonoma County
San Bernardino County
Solano County
California Community Colleges
WorkSystems, Portland
City of Seattle
Kansas City
Market Failures from Fragmentation:

Students:
- Increased reliance on the social capital of their teachers/school/program

Educators and Employers:
- Increased confusion and inefficiency as to where or how to plug into marketplace

Intermediaries:
- Unproductive competition with other intermediaries for perceived scarce employer resource
Four Core Objectives of the 18-month project
1. Establish a common understanding of WBL
2. Strengthen college and regional WBL systems
3. Refine technologies and services that support WBL at scale
4. Build the evidence base for long-term investment in WBL

Key Learnings
1. Educator and Student buy-in were biggest challenges
2. WBL is very fragmented at the campus level, let alone regional
3. Colleges mostly focus on internships, despite many students having had little career exploration
4. Great interest in providing WBL, but uncertain about state-level policy direction or local college administrative priorities
Preparing students for Future of work
by connecting industry + education
The future of the US Workforce

4.01 Million 9th Graders
2.8 Million High School Graduates
1.9 Million College Plans
Only 1.3 Million College Ready
278K Majoring in STEM
167,000 STEM Graduates

www.bls.gov/news.release/ooh.nr0.htm

The Future of Middle-Skills Jobs.
Business Roundtable
Lack of Relevance and Exposure

Kids who drop out do so because they don’t see the relevance of school.

- Gates Foundation Study, 2013
“Opportunity gaps don’t merely spring forth from gaps in achievement or attainment—they are based on exposure. They are also social and geographic in nature.”

Julia Fischer, Christensen Institute
Equality of Opportunity Project
Why Isn’t Industry Engagement A Part of Every Classroom?

- Geographic barriers
- Too time consuming
- Can’t match professionals skills to curriculum needs
- Lack of access to diversity of career pathways
- Lack of a universal platform that enables teachers and industry experts to collaborate effectively
Nepris Solution

Educators & Learners

Find, Match, Connect, & Engage

Industry Professionals

“The single biggest factor in enhancing career development of young people is engaging business and industry in the classroom.”

Bill Symonds – Global Pathways, Arizona State University
Engagement Models

1. Live National Industry Chats
2. Live Personalized Sessions
3. Nepris Video Library
4. Career Explorer
Nepris – Engagement Models

1. Live National Industry Chats

How to Turn Criticism into Useful Feedback
This session will help you take the sting out of criticism and teach you how to get important feedback you can use to become better at what you do. Do you have a hard time receiving feedback? How we deal with feedback impacts the way we move forward...

INT’L LITERACY DAY: An Author’s Story on Never Giving Up
Alton Carter is an award-winning author of several books, including The Boy Who Carried Bricks and Aging Out and his latest book, The Boy Who Dreamed Big. This can be preordered at www.moniclepresse.com. This fall, he’ll also have a new...

What is Coding?
Kiwi Computer’s CEO Julia Lamorelle didn’t study Computer Science in college, but she launched a coding education company. She shares how anyone can learn to code, what coding really means, and tips to get started. Students will have the...

Resume Writing
Recruiters are inundated with resumes, so how do you make yours stand out from the crowd? I’ll give you tips on the most current trends in resume writing so you will be sure to get noticed.

ANIMATED FILM CREATION SERIES: Pre-Production
Creating animated feature films takes a small army to complete. There are three main parts to the creation of the film: Pre-Production, production, and post-production. This is the first of a three-part series on the creation of animated feature films...

WORLD SPACE WEEK “Make It, Don’t Take It”
Manufacturing In Space
Currently everything we use in space is launched from earth. This session will provide an overview of the in-space manufacturing project. Learn how NASA and the space industry are developing technologies that will reduce launch mass by...

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Nepris — Engagement Models

2
Live
Personalized
Sessions

INDUSTRY EXPERTS

Rajeev Thakur, P.E.
Regional Marketing Manager
Oiram Opto Semiconductors Inc.

Jordan Keller
Technical Service Engineer
Back Corporation

Hannah McCallum
Propulsion Engineer
Virgin Orbit

Firooz Assa
University

VIDEOS

Introduction to Engineering
Careers

Biomedical Engineering:
Accidents can lead to positive outcomes
Connie Zurbruch
St. Jude Medical

What is biomedical engineering?
Connie Zurbruch
St. Jude Medical

Reverse Engineering
Perry Lomond
Seeking New Opportunities

IntrCare.
Scott Gray
Elevate Sys

REQUEST SESSION
Nebris — Engagement Models

Software Developers, Systems Software

ALTERNATIVE TITLES
Software Architect, Software Developer, Software Engineer, Systems Engineer

WHAT THEY DO
Research, design, develop, and test operating systems-level software, compilers, and network distribution software for medical, industrial, military, communications, aerospace, business, scientific, and general computing applications. Set operational specifications and formulate and analyze software requirements. May design embedded systems software. Apply principles and techniques of computer science, engineering, and mathematical analysis.

WHAT THEY NEED
- Basic Skills
  - reading work related information, listening to others, not interrupting, and asking good questions
- Problem Solving
  - noticing a problem and figuring out the best way to solve it.

TASK
Modify existing software to correct errors, to adapt it to new hardware, or to upgrade interfaces and improve performance. Develop or direct software system testing or validation procedures. Direct software programming and development of documentation.

PERSONALITY
Investigative: People interested in this work like activities that include ideas, thinking, and figuring things out.

WORK STYLE
- Attention to Detail
- Analytical Thinking
- Dependability
- Initiative
- Adaptability/Flexibility
- Innovation

WHERE DO THEY WORK
- Professional, Science, & Technical
- Manufacturing
- Media & Communication

VIDEOS FEATURING THIS CAREER

Found 699 search results.
1. Software Developers, Systems Software
2. Software Developers, Applications
3. Software Quality Assurance Engineers & Testers
4. Computer Systems Engineers
5. Computer Network Architects
6. Computer Systems Analysts
7. Web Developers
8. Computer Programmers
9. Electromechanical Engineering Technologists
10. Electronics Engineers
11. Aerospace Engineers
12. Computer Hardware Engineers
13. Computer User Support Specialists
14. Electrical Engineers
15. Computer & Information Research Scientists
16. Mining & Geological Engineers, Including Mining Safety Engineers
17. Network & Computer Systems Administrators
18. Computer Network Support Specialists
19. Database Administrators
20. Bioinformatics Technicians
22. Remote Sensing Technicians
23. Electronics Engineering Technicians
24. Computer Operators
25. Biomedical Engineers
26. Automotive Engineers
27. Nanosystems Engineers
28. Mechanical Engineers
29. Mathematicians
30. Architectural & Engineering Managers
31. Electrical Engineering Technicians
32. Operations Research Analysts
33. Biochemical Engineers
34. Electrical Engineering Technologists
35. Electronics Engineering Technologists
36. Telecommunications Engineering Specialists
37. Geospatial Information Scientists & Technologists
38. Financial Quantitative Analysts
39. Microsystems Engineers
40. Materials Engineers
41. Transportation Engineers
42. Solar Energy Systems Engineers
43. Mechanical Engineering Technicians

MEDIAN YEARLY SALARY
$107,600
90TH PERCENTILE YEARLY SALARY
$164,150

REQUIRED EDUCATION
bachelor’s degree, master’s degree

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Community Partners

Build your future workforce by connecting the education and business sectors within your communities.

Intermediaries powered by Community Partners

Federal/State Government
- Legislation & Funding
- Local education service agencies
- ESSA & Perkins

Employers
- Chambers of Commerce
- Local Companies & Foundations
- Professional Associations

Learners, Instructors, Future Workforce
- K-12 Community Colleges
- Post Secondary Adult Educatio
Roscoe, Texas

A rural community with a vision
“As a rural district it is not often possible to connect our classrooms with diverse industry professionals. Nepris has made it a reality.“
- Dr. Kim Alexander, Superintendent, Roscoe ISD
“Before Nepris, I was focused on a military career but now I know that military is not my only option.”
ACTIVITY

Exploring Technology-Enabled Solutions
GROUP BRAINSTORMING

15 MINUTES

Step 1: Ask one person to read the provided persona.

Step 2: As a team, think through each of the three focus questions. Capture Ideas on post-it notes and organize per question.
Each team shares a brief synopsis of their persona as well as a few interesting solutions / ideas that emerged.
Questions and Discussion
THANK YOU

PLEASE TAKE OUR FEEDBACK SURVEY:
SURVEYMONKEY.COM/R/PSNFEEDBACKFORM