

2014  
2015

# ANNUAL REPORT

Engineering Career Resource Center

# Welcome



I am pleased to share with you the 2014-2015 issue of the Engineering Career Resource Center (ECRC) Annual Report. The report contains information on the post-graduation activities of December 2013 – August 2014 graduates and hiring activity for the College of Engineering Internship and Cooperative Education (Co-op) Program.

This year's salary and recruiting data shows that Michigan Engineers are highly sought after by numerous employers. Bachelor's level students reported an increase in accepting full-time employment over graduate school. Many majors saw average salary increases over last year's salaries.

The ECRC continued to provide a range of services to graduate and undergraduate students and alumni of the College. As always, our goal is to assist students in gaining valuable professional experiences that will help them make a successful transition from school to career. We focused on resume writing, interviewing skills, mock interviews and job search strategies. We look forward to another exciting year.

Sincerely,

A handwritten signature in black ink that reads "Kerri Boivin". The script is fluid and cursive.

Kerri Boivin  
Director, Engineering Career Resource Center  
College of Engineering  
University of Michigan

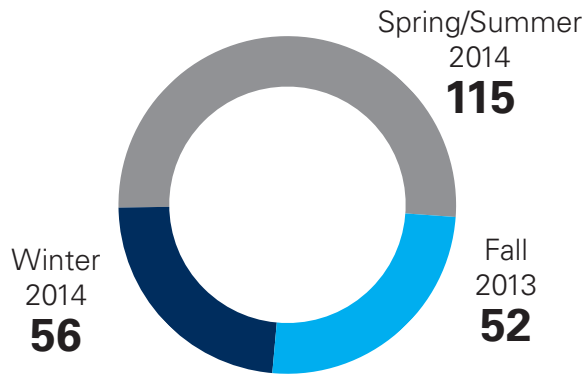


# Cooperative Education

The non-credit Cooperative Education (Co-op) Program enables students to alternate school and work terms and apply their skills to the work setting. In addition to providing a source of valuable talent, co-op students offer employers an opportunity to identify qualified candidates prior to graduation. Ideally, co-op is eight-months of hands-on engineering experience, occurring either May through December or January through August.

## Registered Co-op Students

Total  
**223**



## Co-op Salaries and Hires

Program <sup>†</sup>	Hires <sup>††</sup>	Median Monthly Salary	Average Monthly Salary
Aerospace Engineering	14	\$3,040	\$3,160
Biomedical Engineering	4	\$3,120	\$3,090
Chemical Engineering	21	\$3,588	\$4,068
Civil Engineering	5	\$2,378	\$2,665
Computer Engineering	16	\$4,420	\$4,320
Computer Science	55	\$6,500	\$5,674
Electrical Engineering	17	\$3,385	\$4,024
Environmental Engineering	4	\$3,250	\$3,215
Industrial & Operations Engineering	24	\$3,424	\$3,508
Materials Science & Engineering	3	\$3,440	\$3,451
Mechanical Engineering	43	\$3,120	\$3,084

<sup>†</sup> Programs with only one submission were omitted.

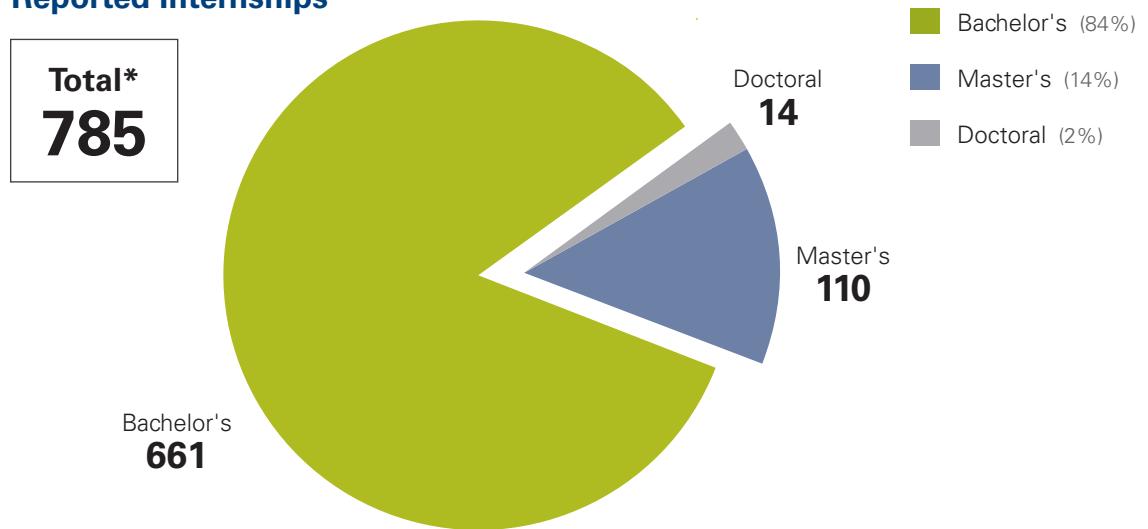
<sup>††</sup> 15 students reported hires, but did not provide salary information. Their data was omitted.



# Internships

Non-credit internships are popular amongst U-M engineering and computer science students. Students have the opportunity to gain valuable work experience in an engineering environment. The assignments typically occur May through August and may be in locations all over the world. Many students at the College participate in internships. **The internships in this publication only include those that were reported to the ECRC.**

## Reported Internships\*



\* Data only reflects internships reported to the ECRC.



## Bachelor's Internship Salaries and Hires

Program <sup>†</sup>	Hires <sup>††</sup>	Median Monthly Salary	Average Monthly Salary
Aerospace Engineering	27	\$3,553	\$3,635
Biomedical Engineering	15	\$2,860	\$3,304
Chemical Engineering	49	\$3,685	\$3,781
Civil Engineering	13	\$2,600	\$2,565
Computer Engineering	29	\$3,640	\$4,486
Computer Science	133	\$5,001	\$4,903
Electrical Engineering	45	\$3,467	\$3,840
Engineering (undeclared)	4	\$2,903	\$2,882
Environmental Engineering	6	\$2,730	\$2,646
Industrial & Operations Engineering	80	\$3,565	\$3,703
Materials Science & Engineering	24	\$3,380	\$3,455
Mechanical Engineering	116	\$3,467	\$3,500
Naval Architecture & Marine Engineering	8	\$3,077	\$3,664
Nuclear Engineering & Radiological Sciences	6	\$2,990	\$3,524
<b>Total</b>	<b>555</b>		

<sup>†</sup> Programs with only one submission were omitted.

<sup>††</sup> 128 students from the different degree levels reported hires, but did not provide salary information. Their data was omitted.



## Master's Internship Salaries and Hires

Program <sup>†</sup>	Hires <sup>††</sup>	Median Monthly Salary	Average Monthly Salary
Atmospheric, Oceanic & Space Sciences	2	-	\$3,470
Biomedical Engineering	5	\$3,467	\$3,832
Civil Engineering	3	\$2,600	\$2,542
Computer Science & Engineering	14	\$5,958	\$5,447
Electrical Engineering	7	\$4,507	\$4,911
Electrical Engineering: Systems	10	\$5,287	\$5,665
Energy Systems Engineering	3	\$3,120	\$3,524
Financial Engineering	3	\$4,507	\$4,651
Industrial & Operations Engineering	16	\$4,746	\$4,431
Manufacturing Engineering	2	-	\$7,150
Mechanical Engineering	17	\$4,333	\$4,156
Space Engineering	6	\$4,420	\$4,582
<b>Total</b>	<b>88</b>		

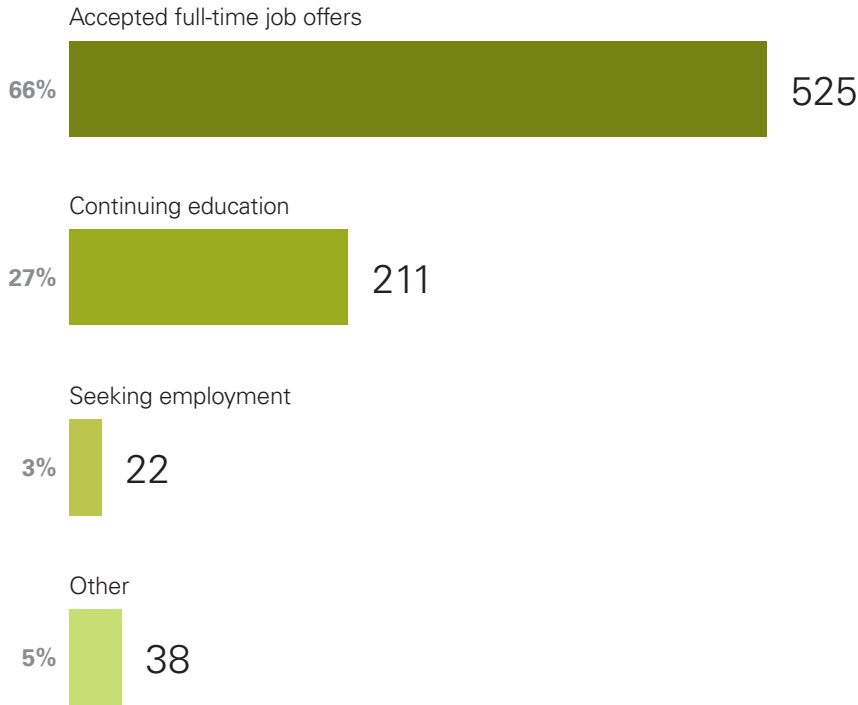
<sup>†</sup> Programs with only one submission were omitted.

<sup>††</sup> 128 students from the different degree levels reported hires, but did not provide salary information. Their data was omitted.



# Bachelor's Graduates

## Post-graduation Plans



Note: Out of graduating class of 1,542, 796 responses were collected from December 2013 to November 30, 2014. Response rate = 52%.





### Job Acceptances by Program

Data reflects total respondents indicating salary

	Respondents*	Base Salary Information		
		Median	Average	Range
Aerospace Engineering	23	\$64,500	\$64,455	\$40,000 - 85,000
Chemical Engineering	41	\$70,000	\$71,273	\$45,000 - 99,000
Civil Engineering	22	\$53,250	\$58,899	\$40,000 - 87,000
Computer Engineering	19	\$81,000	\$81,247	\$62,000 - 120,000
Computer Science	92	\$85,000	\$83,095	\$40,000 - 130,000
Electrical Engineering	30	\$69,000	\$71,969	\$62,000 - 100,000
Industrial & Operations Engineering	78	\$63,800	\$64,227	\$45,000 - 90,000
Materials Science & Engineering	18	\$63,500	\$64,278	\$50,000 - 100,000
Mechanical Engineering	98	\$65,800	\$64,674	\$33,000 - 103,000
Naval Architecture & Marine Engineering	6	\$61,500	\$60,500	\$45,000 - 80,000

**Total** **427**

\* Categories with two or less respondents were omitted.



## Job Acceptances by Region

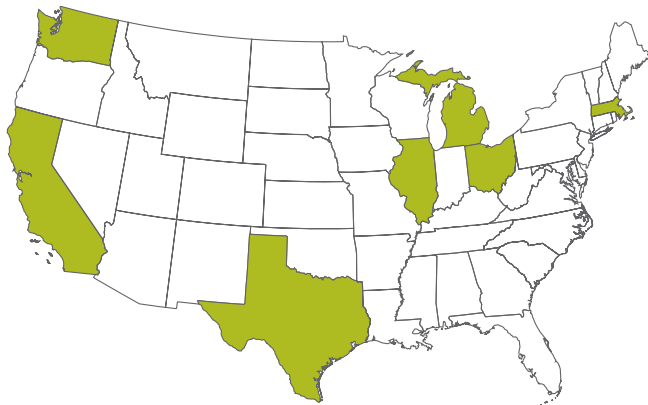
Data reflects total respondents indicating salary and location

				Base Salary Information		
		Respondents	%	Median	Average	Range
Midwest	IA, IL, IN, KS, MI, MN, MO, NE, ND, OH, SD, WI	237	56%	\$65,000	\$65,100	\$36,400 - 120,000
West	AK, CA, HI, ID, MT, NV, OR, UT, WA, WY	69	16%	\$90,000	\$89,699	\$50,000 - 130,000
South	AL, FL, GA, KY, LA, MS, NC, SC, TN	39	9%	\$68,000	\$71,201	\$36,000 - 104,000
Southwest	AZ, CO, NM, OK, TX	35	8%	\$70,000	\$70,477	\$42,000 - 97,000
Northeast	CT, MA, ME, NH, NJ, NY, RI, VT	30	7%	\$65,000	\$68,333	\$50,000 - 112,000
Mid-Atlantic	DC, DE, MD, PA, VA, WV	15	4%	\$56,000	\$56,133	\$33,000 - 75,000

**Total** **425**

## Job Acceptances by State (Top 7)

Data reflects total respondents indicating location



1	Michigan	159	37%
2	California	39	9%
3	Illinois	37	9%
4	Texas	29	7%
5	Washington	29	7%
6	New York	17	4%
7	Ohio	14	3%
<i>Other locations</i>		103	24%
<b>Total</b>		<b>427</b>	



## Job Acceptances by Sector

Data reflects total respondents indicating salary and employer

	Respondents*	%	Base Salary Information		
			Median	Average	Range
Aerospace & Defense	21	5%	\$68,000	\$61,946	\$40,000 - 76,165
Automotive & Transport Equipment	63	15%	\$65,880	\$64,460	\$43,680 - 85,000
Chemicals	12	3%	\$70,000	\$69,900	\$65,000 - 82,000
Computer Hardware	16	4%	\$102,000	\$97,250	\$70,000 - 120,000
Computer Software & Services	80	19%	\$80,000	\$79,327	\$45,000 - 130,000
Conglomerates	6	1%	\$66,000	\$67,500	\$65,000 - 75,000
Consulting	37	9%	\$68,000	\$67,294	\$43,680 - 85,000
Consumer Products	22	5%	\$66,500	\$66,409	\$55,000 - 105,000
Educational/Academia	4	1%	\$42,500	\$55,350	\$36,400 - 100,000
Electronics	7	2%	\$69,000	\$67,857	\$63,000 - 70,000
Energy	26	6%	\$86,500	\$82,919	\$60,000 - 103,000
Energy & Utilities	6	1%	\$61,500	\$64,167	\$52,000 - 80,000
Engineering Services	26	6%	\$66,000	\$67,242	\$45,000 - 100,000
Environmental	4	1%	\$47,500	\$47,250	\$42,000 - 52,000
Financial Services	16	4%	\$70,000	\$72,000	\$50,000 - 120,000
Government	7	2%	\$57,000	\$54,714	\$33,000 - 75,000
Healthcare Products & Services	9	2%	\$60,000	\$60,467	\$52,000 - 66,000
Manufacturing	31	7%	\$62,000	\$62,632	\$42,000 - 104,000
Marketing Group	3	1%	\$85,000	\$80,000	\$55,000 - 100,000
Materials & Construction	7	2%	\$56,400	\$56,200	\$48,000 - 65,000
Media	3	1%	\$65,000	\$71,667	\$65,000 - 85,000
Telecommunications	5	1%	\$67,000	\$72,800	\$55,000 - 90,000
Transportation	7	2%	\$66,000	\$61,214	\$49,000 - 70,000

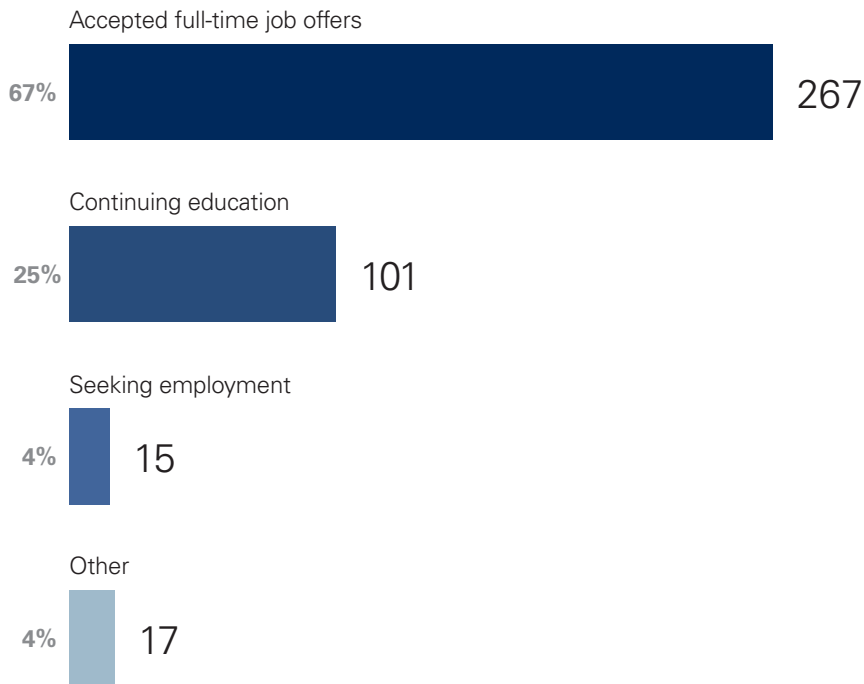
**Total** **418**

\* Categories with two or less respondents were omitted.



# Master's Graduates

## Post-graduation Plans



Note: Out of graduating class of 1,012, 400 responses were collected from December 2013 to November 30, 2014. Response rate = 40%.



## Job Acceptances by Program

Data reflects total respondents indicating salary

	Respondents*	Base Salary Information		
		Median	Average	Range
Aerospace Engineering	13	\$72,500	\$69,462	\$50,000 - 78,000
Automotive Engineering	7	\$76,800	\$74,829	\$70,000 - 80,000
Biomedical Engineering	17	\$67,000	\$66,798	\$50,000 - 80,000
Civil Engineering	7	\$62,000	\$63,571	\$40,000 - 91,000
Computer Science & Engineering	26	\$101,480	\$96,822	\$60,000 - 115,000
Electrical Engineering	13	\$88,000	\$86,423	\$60,000 - 112,000
Electrical Engineering: Systems	20	\$78,000	\$84,638	\$40,000 - 140,000
Energy Systems Engineering	7	\$85,000	\$89,857	\$67,000 - 120,000
Environmental Engineering	3	\$55,000	\$54,333	\$53,000 - 55,000
Financial Engineering	7	\$80,000	\$85,857	\$68,000 - 120,000
Industrial & Operations Engineering	29	\$75,000	\$77,578	\$38,000 - 120,000
Manufacturing Engineering	4	\$81,000	\$86,250	\$68,000 - 115,000
Mechanical Engineering	25	\$71,000	\$69,961	\$48,000 - 97,000
Naval Architecture & Marine Engineering	8	\$76,000	\$76,125	\$62,000 - 85,000
Space Engineering	7	\$74,000	\$71,961	\$62,000 - 80,017

**Total**

**193**

\* Categories with two or less respondents were omitted.



## Job Acceptances by Region

Data reflects total respondents indicating salary and location

	States	Respondents	%	Base Salary Information		
				Median	Average	Range
Midwest	IA, IL, IN, KS, MI, MN, MO, NE, ND, OH, SD, WI	98	50%	\$71,000	\$70,871	\$35,000 - 120,000
West	AK, CA, HI, ID, MT, NV, OR, UT, WA, WY	47	24%	\$90,000	\$92,177	\$52,500 - 140,000
Northeast	CT, MA, ME, NH, NJ, NY, RI, VT	25	13%	\$78,000	\$78,172	\$40,000 - 110,000
Southwest	AZ, CO, NM, OK, TX	15	8%	\$80,000	\$84,100	\$55,000 - 120,000
South	AL, FL, GA, KY, LA, MS, NC, SC, TN	11	6%	\$76,000	\$77,864	\$58,000 - 92,000
<b>Total</b>		<b>196</b>				

## Job Acceptances by State (Top 7)

Data reflects total respondents indicating location



1	Michigan	61	31%
2	California	34	17%
3	Texas	18	9%
4	Illinois	16	8%
5	Indiana	15	8%
6	Washington	13	7%
7	New York	12	6%
	<i>Other locations</i>	30	15%
	<b>Total</b>	<b>199</b>	



## Job Acceptances by Sector

Data reflects total respondents indicating salary and employer

	Respondents*	%	Base Salary Information		
			Median	Average	Range
Aerospace & Defense	13	7%	\$75,000	\$74,462	\$60,000 - 87,500
Automotive & Transport Equipment	25	13%	\$74,600	\$75,132	\$40,000 - 120,000
Computer Hardware	3	2%	\$100,000	\$97,500	\$87,500 - 105,000
Computer Software & Services	50	27%	\$91,000	\$89,952	\$38,000 - 120,000
Consulting	21	11%	\$70,000	\$70,310	\$48,000 - 110,000
Electronics	3	2%	\$75,000	\$76,007	\$73,020 - 80,000
Energy	22	12%	\$73,500	\$74,717	\$40,000 - 101,000
Engineering Services	19	10%	\$64,000	\$70,763	\$50,000 - 140,000
Financial Services	6	3%	\$85,000	\$85,667	\$74,000 - 100,000
Government	8	4%	\$57,500	\$58,847	\$35,000 - 78,208
Healthcare Products & Services	7	4%	\$71,000	\$70,143	\$63,000 - 80,000
Manufacturing	6	3%	\$72,500	\$78,750	\$57,500 - 100,000
Transportation	5	3%	\$85,000	\$82,600	\$78,000 - 85,000

**Total**

**188**

\* Categories with two or less respondents were omitted.

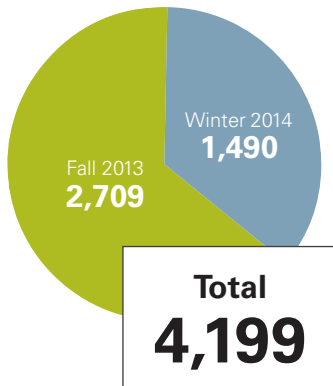


# Recruiting Season

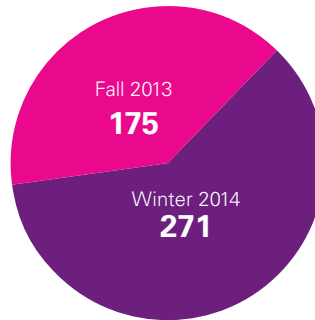
## ENGenius.Jobs Postings

Term	Jobs Posted
Summer/Fall 2013	4,023
Winter/Spring 2014	3,971
<b>Total</b>	<b>7,994</b>

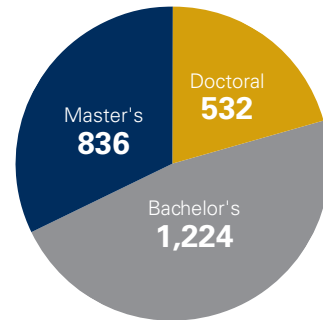
### On-campus Interviews



### Organizations Conducting On-campus Interviews



### Organizations Requesting Specific Degree Levels





## Undergraduate Majors Most Requested by Organizations in Job Postings

Major	# of Job Postings*	% of Total Jobs Posted
Computer Science	4,065	68%
Computer Engineering	3,920	65%
Electrical Engineering	3,646	61%
Mechanical Engineering	3,181	53%
Industrial & Operations Engineering	2,563	43%
Chemical Engineering	2,296	38%

\* 6,002 total jobs posted for undergraduate degree candidates from July 2013 to June 2014. Some postings seek candidates from more than one major.



## Top Hiring Companies (2013-2014)

	Full-time	Intern	Co-op	Total Hires
Ford Motor Company	47	23	-	<b>70</b>
Amazon	16	14	16	<b>46</b>
University of Michigan	26	19	-	<b>45</b>
Microsoft	20	15	4	<b>39</b>
Cummins, Inc.	17	16	1	<b>34</b>
Boeing Company, The	13	16	-	<b>29</b>
Facebook	8	13	5	<b>26</b>
DTE Energy	3	10	12	<b>25</b>
General Electric	6	16	3	<b>25</b>
General Motors	16	8	-	<b>24</b>
Chrysler	11	11	-	<b>22</b>
Google	7	9	6	<b>22</b>
JP Morgan Chase	5	15	1	<b>21</b>
Cisco Systems	11	6	3	<b>20</b>
Stryker	6	14	-	<b>20</b>
Toyota (TEMA)	1	4	15	<b>20</b>
Accenture	13	3	-	<b>16</b>
Dow Chemical USA	7	4	4	<b>15</b>
Apple	6	5	3	<b>14</b>
Goldman Sachs	3	7	4	<b>14</b>
Qualcomm, Inc.	6	7	1	<b>14</b>
Shell	11	3	-	<b>14</b>

Complete list available at [career.engine.umich.edu/companylist.pdf](http://career.engine.umich.edu/companylist.pdf)





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This publication includes post-graduate  
and salary data reported as of November 30, 2014.

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