



Conference for Open Source Coders, Users & Promoters



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- ▣ Curriculum: An Introduction
- ▣ Text Summarization
- ▣ TextSummarization.jl and TextAnalysis.jl
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Curriculum

- A course of study that will enable the learner to acquire specific knowledge and skills
- A curriculum is the combination of instructional practices, learning experiences, and students' performance assessment that are designed to bring out and evaluate the target learning outcomes of a particular course
- Curriculum is what the school is attempting to teach, which might include social behaviors as well as content and thinking skills
- A selection of information, segregated into disciplines and courses, typically designed to achieve a specific educational objective
- The curriculum is the program of instruction. It should be based on both standards and best practice research. It should be the framework that teachers use to plan instruction for their students
- Curriculum can be both written and unwritten

Source: http://www1.udel.edu/educ/whitson/897s05/files/definitions_of_curriculum.htm

C. Structure of Undergraduate Engineering program :

S. No.		Credit Breakup for CSE students
1	Humanities and Social Sciences including Management courses	12
2	Basic Science courses	24
3	Engineering Science courses including workshop, drawing, basics of electrical/mechanical/computer etc	29
4	Professional core courses	49
5	Professional Elective courses relevant to chosen specialization/branch	18
6	Open subjects – Electives from other technical and /or emerging subjects	12
7	Project work, seminar and internship in industry or elsewhere	15
8	Mandatory Courses [Environmental Sciences, Induction Program, Indian Constitution, Essence of Indian Traditional Knowledge]	(non-credit)
	Total	159*

**Minor variation is allowed as per need of the respective disciplines.*

Course Code	:	COPC210
Course Title	:	Web Technologies
Number of Credits	:	2 (L: 2, T: 0, P: 0)
Prerequisites	:	-
Course Category	:	PC

Course Learning Objectives:

To provide basic skills on tools, languages and technologies related to website development. Learnings from this course may be used in the Mini Project and summer internship.

Course Content:

UNIT 1: Introduction to www

Protocols and programs, secure connections, application and development tools, the web browser, What is server, setting up UNIX and LINUX web servers, Logging users, dynamic IP Web Design: Web site design principles, planning the site and navigation

UNIT 2: Web Systems Architecture

Architecture of Web based systems- client/server (2-tier) architecture, 3-Tier architecture, Building blocks of fast and scalable data access Concepts - Caches-Proxies- Indexes-Load Balancers- Queues, Web Application architecture (WAA)

UNIT 3: Javascript

Client side scripting, What is Javascript, simple Javascript, variables, functions, conditions, loops and repetition

UNIT 4: Advance scripting

Javascript and objects, Javascript own objects, DOM and web browser environments, forms and validations

DHTML: Combining HTML, CSS and Javascript, events and buttons, controlling your browser,

Ajax: Introduction advantages & disadvantages, ajax based web application, alternatives of ajax

XML, XSL and XSLT: Introduction to XML, uses of XML, simple XML, XML key components, DTD and Schemas, XML with application, XSL and XSLT.

Introduction to Web Services

UNIT 5: PHP

server side scripting, Arrays, function and forms, advance PHP Databases : Basic command with PHP examples, Connection to server, creating database, selecting a database, listing database, listing table-names creating a table, inserting data, altering tables, queries, deleting database, deleting data and tables, PHP myadmin and database bugs.

Source: <https://www.aicte-india.org/sites/default/files/DiplomaET.pdf> Pages: 341-342

Sort by: **relevance** - date

Page 1 of 934 jobs ⓘ

Front End Developer

talentbag

Mumbai, Maharashtra • Temporarily remote

🔒 Apply securely with Indeed Resume

⚡ Responsive employer

- Designing & developing UI for web & mobile applications.
- The ideal candidate will be responsible for designing, developing, testing, and debugging responsive...

30+ days ago · [Save job](#)

Jr. .NET Developer

NetXs Solutions

Ahmedabad, Gujarat • Temporarily remote

₹10,000 - ₹20,000 a month

🔒 Apply securely with Indeed Resume

- We at NetXs Solutions,Ahmedabad have URGENT job opening for "Jr.
- .NET Developer" and looking for a person having knowledge &

Front End Developer

talentbag - Mumbai, Maharashtra

Full-time, Fresher - Temporarily remote

⚡ Responded to 75% or more applications in the past 30 days, typically within 2 days.

Apply Now



The ideal candidate will be responsible for designing, developing, testing, and debugging responsive web and mobile applications for the company. Using HTML and CSS, this candidate will be able to translate user and business needs into functional frontend design.

Responsibilities

- Designing & developing UI for web & mobile applications
- Build reusable code and libraries for future use
- Ability to convert comprehensive layout and wireframes into working HTML pages.
- Accurately translate user and business needs into functional frontend code

Qualifications

- Familiarity using Scrum/Agile development methodologies
- Fresher or less than 2 years of experience in frontend development
- Good understanding of front-end technologies including HTML, CSS(flex), JavaScript, jQuery & Bootstrap framework


6 days ago · [Save job](#) · [More...](#)

new

Web Developer

Radi8 Labs

Kochi, Kerala · Remote

 Apply securely with Indeed Resume

- 2 years of experience building web applications.
- Web development: 2 years (Preferred).
- Building rich, interactive web applications in a greenfield environment.

Just posted · [Save job](#) · [More...](#)


new

Full Stack Web Developer

Joys Bakehouse

Remote

₹20,000 - ₹25,000 a month

 Apply securely with Indeed Resume

- We are hiring web developers for a new project that we are undertaking.
- It's a remote (work from home) job opportunity in which you must be willing to work...

4 days ago · [Save job](#) · [More...](#)

new

PHP Web Developer

Web Developer

Radi8 Labs - Kochi, Kerala

Full-time, Contract, Fresher - Remote

[Apply Now](#)



What you'll be doing:

- Building rich, interactive web applications in a greenfield environment
- Building API's and developing micro-services
- Designing new features
- CI/CD

What you'll need:

- 2 years of experience building web applications
- Programming in Python, PHP, Go, Java or other functional programming languages
- Knowledge of HTML, CSS, Javascript, Bootstrap & Material UI
- Strong computer science fundamentals and a love for design
- Quick learner & Result driven
- Good communication and a love for travel and problem solving

Nice to have:

- Github account with some cool projects
- React, Angular, Vue or Webpack
- Experience on consumer facing applications
- Agile, DevOps methodology

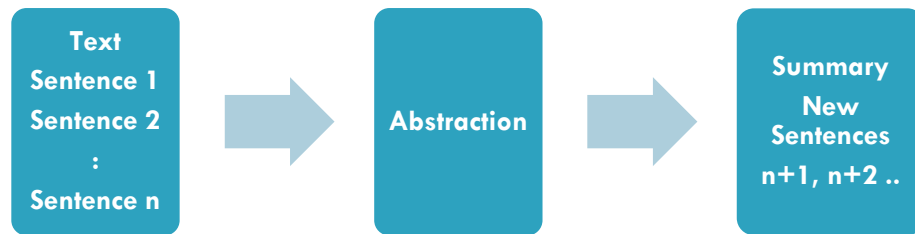
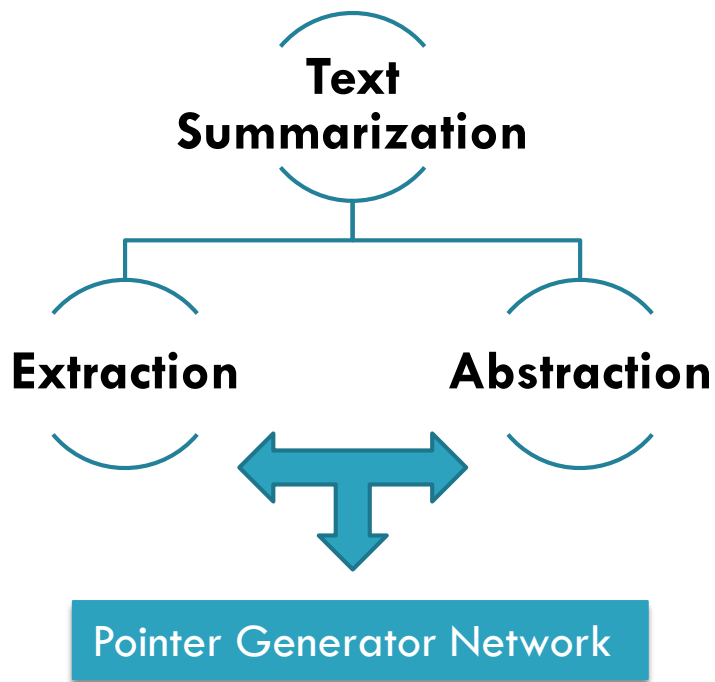
Job Types: Full-time, Contract, Fresher

Experience:

- web development: 2 years (Preferred)

Text Summarization

Shortening long pieces of text by applying computational methods



1

- Create a dataset of job postings

2

- Remove unwanted stop words, numbers, punctuation marks, unrelated words

3

- Tokenize words and sentences.

4

- Compute word frequency [n-gram analysis] and sentence score.

5

- Select sentences with high scores and concatenate them

6

- Sort the words in descending order of frequency (highest first)

7

- Extract the top-n words/ word combinations from the previous step and compare them with the Syllabus of particular subject

8

- Refine the syllabus of existing subject with new keywords.
- Propose a new subject

TextSummarizer.jl

```
import Pkg;
```

```
Pkg.clone("/home/gajendra/julia-1.0.5-linux-x86_64/julia-1.0.5/TextSummarizer.jl-master")
```

```
Pkg.activate("/home/gajendra/julia-1.0.5-linux-x86_64/julia-1.0.5/TextSummarizer.jl-master")
```

GitHub: <https://github.com/Jcharis/TextSummarizer.jl>

Tutorial: <https://www.youtube.com/watch?v=PwkpAXXQmrA>

```
julia> using TextSummarizer
```

```
julia> docx="The ideal candidate will be responsible for designing, developing, testing, and debugging responsive web and mobile applications for the company. Using HTML and CSS, this candidate will be able to translate user and business needs into functional frontend design."
```

Responsibilities

Designing & developing UI for web & mobile applications
Build reusable code and libraries for future use
Ability to convert comprehensive layout and wireframes into working HTML pages.
Accurately translate user and business needs into functional frontend code

Qualifications

Familiarity using Scrum/Agile development methodologies
Fresher or less than 2 years of experience in frontend development
Good understanding of front-end technologies including HTML, CSS(flex), JavaScript, jQuery & Bootstrap framework

Required Web Developer and Designer Candidates must have good knowledge of wordpress,HTML,PHP Skills:- Wordpress and HTML .Experience :- Fresher to 1 year

Web Developer We are hiring full time web developer and looking for bright candidate to join team Random Soft Solution

Skills: Html, CSS, Bootstrap, PHP, JQuery, WordPress, CI.

Qualification: Graduation.

Expreince: Fresher 2 Year.

Salary: 1.8 to 2.6 lac INR/Annual

Skills:Html, CSS, Bootstrap, PHP, JQuery, WordPress, CI. Qualification:Graduation. Expreince:Fresher 2 Year. Salary: 1.8 to 2.6 lac INR/Annual"

"The ideal candidate will be responsible for designing, developing, testing, and debugging responsive web and mobile applications for the company. Using HTML and CSS, this candidate will be able to translate user and business needs into functional frontend design.\n\nResponsibilities\n\n Designing & developing UI for web & mobile applications\n Build reusable code and libraries for future use\n Ability to convert comprehensive layout and wireframes into working HTML pages.\n Accurately translate user and business needs into functional frontend code\n\nQualifications\n\n Familiarity using Scrum/Agile development methodologies\n Fresher or less than 2 years of experience in frontend development\n Good understanding of front-end technologies including HTML, CSS(flex), JavaScript, jQuery & Bootstrap framework\n\nRequired Web Developer and Designer Candidates must have good knowledge of wordpress,HTML,PHP Skills:- Wordpress and HTML .Experience :- Fresher to 1 year\n\nWeb Developer We are hiring full time web developer and looking for bright candidate to join team Random Soft Solution\n\nSkills: Html, CSS, Bootstrap, PHP, JQuery, WordPress, CI.\n\nQualification: Graduation.\n\nExpreince: Fresher 2 Year. Salary: 1.8 to 2.6 lac INR/Annual\n\nSalary: 1.8 to 2.6 lac INR/Annual\n\nSkills:Html, CSS, Bootstrap, PHP, JQuery, WordPress, CI. Qualification:Graduation. Expreince:Fresher 2 Year. Salary: 1.8 to 2.6 lac INR/Annual"

```
julia> TextSummarizer.text_summarizer(docx)
```

"Skills:Html, CSS, Bootstrap, PHP, JQuery, WordPress, CI. Skills: Html, CSS, Bootstrap, PHP, JQuery, WordPress, CI. The ideal candidate will be responsible for designing, developing, testing, and debugging responsive web and mobile applications for the company. Required Web Developer and Designer Candidates must have good knowledge of wordpress,HTML,PHP Skills:- Wordpress and HTML .Experience :- Fresher to 1 year Good understanding of front-end technologies including HTML, CSS(flex), JavaScript, jQuery & Bootstrap framework Using HTML and CSS, this candidate will be able to translate user and business needs into functional frontend design. Salary: 1.8 to 2.6 lac INR/Annual Web Developer We are hiring full time web developer and looking for bright candidate to join team Random Soft Solution

Designing & developing UI for web & mobile applications Accurately translate user and business needs into functional frontend code Expreince:Fresher 2 Year. Expreince: Fresher 2 Year. Qualification:Graduation. Qualification: Graduation. Fresher or less than 2 years of experience in frontend development Build reusable code and libraries for future use Ability to convert comprehensive layout and wireframes into working HTML pages. Familiarity using Scrum/Agile development methodologies"

TextAnalysis.jl

```
import Pkg;  
Pkg.add("TextAnalysis")  
Pkg.add("WordTokenizers")  
  
using TextAnalysis  
  
using WordTokenizers
```

Tutorial:

<https://juliatext.github.io/TextAnalysis.jl/documents.html>

<https://jcharistech.wordpress.com/2018/05/01/natural-language-processing-in-julia-text-analysis/>

<https://www.youtube.com/watch?v=4nMP24xhuWg>

```
1 using TextAnalysis
2 using WordTokenizers
3 using Languages
4
5 filepath = "dataset.txt"
6
7 fd = FileDocument(filepath)
8 tokens_list = lowercase.(tokens(fd))
9
10 stopwords_list = stopwords(Languages.English())
11 articles_list = articles(Languages.English())
12 prepositions_list = prepositions(Languages.English())
13 pronouns_list = pronouns(Languages.English())
14 punctuation_list = [",", ";", "?", "\"", "'", "!", ".", "-", "/", "&", ":"]
15 number_list = ["0", "1", "2", "3", "4", "5", "6", "7", "8", "9"]
16 words_list = [
17     "fresher",
18     "candidate",
19     "inr",
20     "graduation",
21     "qualificiation",
22     "experience",
23     "annual",
24     "lac",
25     "hiring",
26     "understanding",
27     "convert",
28     "candidates",
29     "qualifications",
30 ]
```

```
32 for word in words_list
33     filter!(x -> x ≠ word, tokens_list)
34 end
35
36 for num in number_list
37     filter!(x -> x ≠ num, tokens_list)
38 end
39
40 for punctuationmark in punctuation_list
41     filter!(x -> x ≠ punctuationmark, tokens_list)
42 end
43
44 for stopword in stopwords_list
45     filter!(x -> x ≠ stopword, tokens_list)
46 end
47
48 for article in articles_list
49     filter!(x -> x ≠ article, tokens_list)
50 end
51
52 for preposition in prepositions_list
53     filter!(x -> x ≠ preposition, tokens_list)
54 end
55
56 for pronoun in pronouns_list
57     filter!(x -> x ≠ pronoun, tokens_list)
58 end
59
60 language(fd)
```

```
62 td = TokenDocument(tokens_list)
63
64 ngd1 = ngrams(td)
65 ngd2 = ngrams(td, 2)
66 ngd3 = ngrams(td, 3)
67
68 gram = ngd1
69 bigram = ngd2
70 trigram = ngd3
71
72 gramd = NGramDocument(gram)
73 bigramd = NGramDocument(bigram)
74 trigramd = NGramDocument(trigram)
75
76 println()
77
78 sortedDict = sort(collect(gram), by = x -> x[2], rev = true)
79 println(sortedDict)
80
81 sortedDict2 = sort(collect(bigram), by = x -> x[2], rev = true)
82 println(sortedDict2)
83
```



```
gajendra@gajendra-HP-Laptop-15-da0xxx: ~/Downloads/julia-1.0.5-linux-x86_64/julia-1.0.5/bin

gajendra@gajendra-HP-Laptop-15-da0xxx: ~/Downloads/julia-... x gajendra@gajendra-HP-Laptop-15-da0xxx: ~/Downloads/julia-... x gajendra@gajendra-HP-Laptop-15-da0xxx: ~/Downloads/julia-... x

(base) gajendra@gajendra-HP-Laptop-15-da0xxx:~/Downloads/julia-1.0.5-linux-x86_64/julia-1.0.5/bin$ ./julia curriculum.jl

Pair{String,Int64}["html"=>7, "web"=>5, "wordpress"=>4, "css"=>4, "bootstrap"=>3, "developer"=>3, "php"=>3, "frontend"=>3, "skills"=>3, "jquery"=>3, "functional"=>2, "user"=>2, "qualification"=>2, "using"=>2, "1.8"=>2, "applications"=>2, "salary"=>2, "development"=>2, "year."=>2, "expreince"=>2, "graduation."=>2, "ci."=>2, "translate"=>2, "2.6"=>2, "developing"=>2, "designing"=>2, "code"=>2, "business"=>2, "mobile"=>2, "build"=>1, "required"=>1, "front-end"=>1, "designer"=>1, "ideal"=>1, "technologies"=>1, "knowledge"=>1, "future"=>1, "pages."=>1, "("=>1, "reusable"=>1, "scrum"=>1, "time"=>1, "libraries"=>1, "looking"=>1, "including"=>1, "javascript"=>1, "accurately"=>1, "solution"=>1, "("=>1, "methodologies"=>1, "soft"=>1, "responsibilities"=>1, ".experience"=>1, "join"=>1, "random"=>1, "company."=>1, "debugging"=>1, "testing"=>1, "wireframes"=>1, "comprehensive"=>1, "able"=>1, "bright"=>1, "responsible"=>1, "design."=>1, "familiarity"=>1, "ui"=>1, "agile"=>1, "ability"=>1, "layout"=>1, "framework"=>1, "flex"=>1, "team"=>1, "responsi"=>1]

Pair{AbstractString,Int64}["html"=>7, "web"=>5, "wordpress"=>4, "css"=>4, "html css"=>4, "bootstrap"=>3, "developer"=>3, "web developer"=>3, "php"=>3, "frontend"=>3, "skills"=>3, "jquery"=>3, "functional"=>2, "user"=>2, "qualification"=>2, "ci. qualification"=>2, "business functional"=>2, "skills html"=>2, "web mobile"=>2, "graduation. expreince"=>2, "designing developing"=>2, "php jquery"=>2, "using"=>2, "translate user"=>2, "1.8"=>2, "applications"=>2, "user business"=>2, "year. salary"=>2, "salary"=>2, "development"=>2, "year."=>2, "expreince"=>2, "graduation."=>2, "qualification graduation."=>2, "ci."=>2, "translate"=>2, "functional frontend"=>2, "wordpress html"=>2, "css bootstrap"=>2, "2.6"=>2, "wordpress ci."=>2, "1.8 2.6"=>2, "developing"=>2, "designing"=>2, "salary 1.8"=>2, "code"=>2, "expreince year."=>2, "business"=>2, "mobile"=>2, "bootstrap php"=>2, "mobile applications"=>2, "jquery wordpress"=>2, "responsible designing"=>1, "comprehensive layout"=>1, "build"=>1, "reusable code"=>1, "html php"=>1, "required"=>1, "using ht"=>1, "php skills"=>1, "future ability"=>1, "(" flex"=>1, "front-end"=>1, "ideal responsible"=>1, "designer"=>1, "applications company."=>1, "ideal"=>1, "company. using"=>1, "team random"=>1, "designer knowledge"=>1, "technologies"=>1, "knowledge"=>1, "libraries future"=>1, "2.6 skills"=>1, "familiarity using"=>1, "responsive web"=>1, "methodologi"=>1, "pages."=>1, "("=>1, "reusable"=>1, "frontend code"=>1, "development methodologies"=>1, "scrum"=>1, "time"=>1, "wireframes html"=>1, "applications build"=>1, "libraries"=>1, "looking"=>1, "including"=>1, "javascript"=>1, "frontend design."=>1, "build reusable"=>1, ".experience web"=>1, "developer looking"=>1, "accurately"=>1, "solution"=>1, "("=>1, "bootstrap framework"=>1, "soft solution"=>1, "code libraries"=>1, "methodologies"=>1, "soft"=>1, "responsibilities"=>1, ".experience"=>1, "ui web"=>1, "join"=>1, "random"=>1, "flex )"=>1, "testing debugging"=>1, "company."=>1, "debugging"=>1, "testing"=>1, "agile development"=>1, "design. responsibilities"=>1, "looking bright"=>1, "wireframes"=>1, "comprehensive"=>1, "able"=>1, "developing testing"=>1, "html pages."=>1, "bright"=>1, "responsible"=>1, "css able"=>1, "layout wireframes"=>1, "accurately translate"=>1, "responsibilities designing"=>1, "javascript jquery"=>1, "design."=>1, "ability comprehensive"=>1, "required web"=>1, "developing ui"=>1, "join team"=>1, "familiarity"=>1, "in"=>1, "cluding html"=>1, "ui"=>1, "agile"=>1, "front-end technologies"=>1, "ability"=>1, "framework required"=>1, "knowledge wordpress"=>1, "skills wordpress"=>1, "able translate"=>1, "pages. accurately"=>1, "html .experience"=>1, "layout"=>1, "developer time"=>1, "framework"=>1, "time web"=>1, "random soft"=>1, "using scrum"=>1, "developer designer"=>1, "scrum agile"=>1, "css ("=>1, "flex"=>1, "development front-end"=>1, "team"=>1, "code familiarity"=>1, "bright join"=>1, "responsive"=>1]

(base) gajendra@gajendra-HP-Laptop-15-da0xxx:~/Downloads/julia-1.0.5-linux-x86_64/julia-1.0.5/bin$
```

GitHub URL: <https://github.com/gcdeshpande/Inventing-Curriculum-using-Julia>

Conclusion

- To achieve better results using natural language processing one of the important factor is preprocessing of document
- Using pointer generator network we can balance the advantages / disadvantages of extractive / abstractive summarization to get the better results
- Need to experiment with non professional courses and with other than English language such as indic languages

Thank You!

Widescreen Test Pattern (16:9)

Aspect Ratio Test

(Should appear
circular)

4x3

16x9

