

# **Monitoring Armenian IT Industry**

# **Specification Doc**

### 15.12.2018

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# **Used technologies and frameworks**

### Background services

- → Windows NT service for github information scrapping
- → Windows NT service for linkedin information scrapping
- → Windows NT service for proxy scrapping

### Desktop applications

- → WPF application for manually github profile scrapping
- → WPF application for manually linkedin profile scrapping

### Data access layer

- → MSSQL database
- → Entity Framework Core 2.2 (last version)
- → Repository pattern

### Business logic layer

- → Common lib for all models used .NET Standart 2.0
- → Repository pattern

### Web API

→ ASP NET Core 2.2 (last version)

### Technologies and libraries

- → ASP NET Core 2.2 (last version)
- → EF Core 2.2 (last version)
- → .NET Standart 2.0
- → .NET Framework 4.7
- → Selenum web driver
- → nLog (last version)
- → WPF
- → HTMLAgilityPack
- → Remotion.LINQ

# Web API

### **GitHubs**

- Get (returns all GitHub users info from database)
  - → Request /api/github
  - → Response
- Get By Id (returns specific profile and repositories of that GitHub profile by id)
  - → Request /api/github/{id}
  - → Response
- Get by username (returns specific profile and repositories of that GitHub profile by username)
  - → Request api/github/user/{username}
  - → Response

### Linkedins

- Get (returns all Linkedin profiles from database)
  - → Request /api/linkedin
  - → Response
- Get By Id (returns specific Linkedin profile by id)
  - → Request /api/linkedin/{id}
  - → Response
- Get By username (returns specific Linkedin profile by username)
  - → Request /api/linkedin/user/{username}
  - → Response

# 1 Customers

# 1.1 **Get**

Get all github profiles from database

# Request

Method	URL
Get	/api/github

Status	Response	
200 OK	An array of github profiles  [	

"https://avatars1.githubusercontent.com/u/7938403?s=460&v=4",

# 1.2 GetByld

Get specific github profile by Id

# Request

Method	URL
Get	/api/github/{id}

## **Parameters**

Туре	Param name	Values
URL_PARAM	id	1106

Status	Response
200 OK	Full contact and array of repositories list of that profile  {     "Id": 1106,     "UserName": "VanHakobyan",     "Url": "https://github.com/VanHakobyan",     "Company": "@MonsterBit-Org",     "Name": "Vanik Hakobyan",     "Bio": ".NET Software Developer",     "Location": "Armenia, Yerevan",     "Email": "vanhakobyan1996@gmail.com",     "BlogOrWebsite": "https://www.linkedin.com/in/vanikhakobyan",     "StarsCount": 55,     "ImageUrl":     "https://avatars2.githubusercontent.com/u/23220521?s=460&v=4",     "Repositories": [     {         "Id": 6166,     }

```
"Url": "https://github.com//VanHakobyan/ISTC_Coding_School",
"Name": "ISTC_Coding_School",
"CommitCount": 14,
"BranchCount": 1,
"Readme":
"ProfileId": 1106,
"StarsCount": 8,
"ContributorsCount": 1,
"ForksCount": 0,
"Languages": [
   "ld": 12280,
  "Name": "C#",
  "Percent": 100.00,
   "RepositoryId": 6167
"ld": 6168,
"Url": "https://github.com//VanHakobyan/ProjectsGroup",
"Name": "ProjectsGroup",
"CommitCount": 120,
"BranchCount": 1,
```

# 1.3 GetByUsername

Get specific github profile by username

# Request

Method	URL	
Get	/api/github/user/{username}	

### **Parameters**

From	Param name	Value
URL_PARAM	username	Heghine

Status	Туре	Response
200 OK	Profile	Full contact and array of repositories list of that profile  {     "Id": 296,     "UserName": "Heghine",     "Url": "https://github.com/Heghine",     "Company": null,     "Name": "Heghine Hakobyan",     "Bio": null,     "Location": "Yerevan, Armenia",     "Email": null,     "BlogOrWebsite": null,     "StarsCount": 8,     "ImageUrl":     "https://avatars1.githubusercontent.com/u/1607253?s=4 60&v=4",     "Repositories": [     {         "Id": 1172,         "Url": "https://github.com//Heghine/TestAndroidApp",         "Name": "TestAndroidApp",         "CommitCount": 4,         "BranchCount": 0,
		"ProfileId": 296,  "StarsCount": 0,  "ContributorsCount": 1,  "ForksCount": 0,  "Languages": [  {   "Id": 2178,   "Name": "Java",   "Percent": 100.00,   "RepositoryId": 1173  } ]

# 2 Linkedins

## 2.1 **Get**

Get all linkedin profiles from database

## Request

Method	URL
Get	/api/linkedin

```
Status
                        Response
200 OK
                       An array of linkedin profiles
                          "ld": 2,
                          "Username": "anush-hakhverdyan-394bb4164",
                          "FullName": "Anush Hakhverdyan",
                          "Specialty": "Team Lead at PicsArt Inc.",
                          "Location": "Armenia",
                          "Education": null,
                          "Company": "PicsArt Inc.",
                          "ConnectionCount": 61,
                          "Website": null,
                          "Phone": null,
                          "Email": null,
                          "Birthday": null,
                          "Connected": null,
                          "ImageUrl":
                        "https://media.licdn.com/dms/image/C4D03AQF86DpuFzm9AQ/profil
                        e-displayphoto-
                        shrink 800 800/0?e=1544659200&v=beta&t=Gud7W-
                       yBQZtT1GMLvbHMa6LaFtSxtGRe_I5vJycXPKA&quot",
                          "LinkedinEducation": [],
                          "LinkedinExperience": [],
                          "LinkedinInterest": [],
                          "LinkedinLanguage": [],
                          "LinkedinSkill": []
                          "ld": 18,
                          "Username": "lilith-muradian-668536150",
                          "FullName": "Lilith Muradian",
                          "Specialty": "Frontdesk coordinator at apolloBytes",
```

```
"Location": "Armenia",
  "Education": "Yerevan State University...",
  "Company": "apolloBytes",
  "ConnectionCount": 55,
  "Website": null,
  "Phone": null,
  "Email": null,
  "Birthday": null,
  "Connected": null,
  "ImageUrl": null,
  "LinkedinEducation": [],
  "LinkedinExperience": [],
  "LinkedinInterest": [],
  "LinkedinLanguage": [],
  "LinkedinSkill": []
 },
  "ld": 94,
  "Username": "armliberty",
  "FullName": "Rafael Shahoyan",
  "Specialty": "Senior Software Engineer at Mentor Graphics",
  "Location": "Armenia",
  "Education": "National Polytechnic
                                            University of Armenia...",
  "Company": "Mentor Graphics",
  "ConnectionCount": 232,
  "Website": null,
  "Phone": null,
  "Email": null,
  "Birthday": null,
  "Connected": null,
  "ImageUrl":
"https://media.licdn.com/dms/image/C5603AQGQSsGzys7jIg/profile-
displayphoto-
shrink_800_800/0?e=1544659200&v=beta&t=eWSfWpXBICmjKfYFU
ORIgh7Y5fHQ91eGxe56A0Q ANI&quot",
  "LinkedinEducation": [],
  "LinkedinExperience": [],
  "LinkedinInterest": [],
  "LinkedinLanguage": [],
  "LinkedinSkill": []
 }
```

# 2.2 GetByld

Get specific linkedin profile by Id

# Request

Method	URL
Get	/api/linkedin/{id}

## **Parameters**

Туре	Param name	Values
URL_PARAM	id	3061

Tresponse		
Status	Response	
Status 200 OK	Full linkedin profile and array of Education, Experiences, Interests, Languages and Skills of that profile  {     "Id": 3061,     "Username": "aram-zhamkochyan",     "FullName": "Aram Zhamkochyan",     "Specialty": ".Net software engineer / C# developer",     "Location": "Armenia",     "Education": "Université de Poitiers",     "Company": "BetConstruct",     "ConnectionCount": 0,     "Website": "https://github.com/aramzham",     "Phone": null,     "Email": null,     "Birthday": null,     "Connected": null,     "IlmageUrl": null,     "IlmageUrl": null,     "LinkedinEducation": [     {         "Id": 3052,         "Name": "Université de Poitiers",         "Time": "2015 - 2016",         "LinkedinProfileId": 3061,         "Title": "Master 1 of Finance de marché et gestion de patrimoine"	
	}, { "Id": 3053,	
	iu . 3033,	

```
"Name": "Yerevan State University",
   "Time": "2012 - 2014",
   "LinkedinProfileId": 3061,
   "Title": "Master's degree of International economic relations of
17.8"
  },
   "Id": 3054,
   "Name": "Yerevan State University",
   "Time": "2006 - 2010",
   "LinkedinProfileId": 3061,
   "Title": "Bachelor's degree of Theory of Economics"
 "LinkedinExperience": [
   "ld": 5264,
   "Company": null,
   "Title": "Title
                    .Net software engineer",
   "Time": "Nov 2017 - Present",
   "LinkedinProfileId": 3061,
   "Location": "Yerevan"
  },
   "ld": 5265,
   "Company": null,
   "Title": "Title
                    Junior C# developer",
   "Time": "Jul 2017 - Present",
   "LinkedinProfileId": 3061,
   "Location": null
  },
   "ld": 5266,
   "Company": null,
                    POS-terminal service division specialist",
   "Title": "Title
   "Time": "Dec 2012 - Jun 2014",
   "LinkedinProfileId": 3061,
   "Location": null
  },
   "ld": 5267,
   "Company": null,
   "Title": "Title
                     Processing Center Specialist",
   "Time": "Jul 2012 - Dec 2012",
   "LinkedinProfileId": 3061,
   "Location": null
   "Id": 5268,
   "Company": "Armenian Card CJSC (ArCa)",
   "Title": "Call Center Operator",
   "Time": "May 2009 - May 2010",
```

```
"LinkedinProfileId": 3061,
  "Location": null
}
"LinkedinInterest": [
  "ld": 7327,
  "Name": "Yerevan State University",
  "FollowersCount": 17157,
  "LinkedinProfileId": 3061
  "ld": 7328,
  "Name": "Mashable",
  "FollowersCount": 871998,
  "LinkedinProfileId": 3061
  "ld": 7329,
  "Name": "Microsoft",
  "FollowersCount": 5978911,
  "LinkedinProfileId": 3061
  "ld": 7330,
  "Name": "Jason Calacanis",
  "FollowersCount": 526257,
  "LinkedinProfileId": 3061
  "Id": 7331,
  "Name": "Université de Poitiers",
  "FollowersCount": 44224,
  "LinkedinProfileId": 3061
  "Id": 7332,
  "Name": "Business Insider",
  "FollowersCount": 5488575,
  "LinkedinProfileId": 3061
}
"LinkedinLanguage": [
  "Id": 4409,
  "Name": "jQuery Tutorial Course",
  "LinkedinProfileId": 3061
  "ld": 4410,
  "Name": "JavaScript Tutorial Course",
  "LinkedinProfileId": 3061
```

```
},
 "Id": 4411,
 "Name": "Python 3 Tutorial Course",
 "LinkedinProfileId": 3061
},
 "ld": 4412,
 "Name": "SQL Fundamentals",
 "LinkedinProfileId": 3061
},
 "ld": 4413,
 "Name": "SoloLearn C# Tutorial course completion",
 "LinkedinProfileId": 3061
},
 "ld": 4414,
 "Name": "English",
 "LinkedinProfileId": 3061
},
 "Id": 4415,
 "Name": "Français",
 "LinkedinProfileId": 3061
},
 "ld": 4416,
 "Name": "???????",
 "LinkedinProfileId": 3061
},
 "Id": 4417,
 "Name": "??????",
 "LinkedinProfileId": 3061
},
 "Id": 4418,
 "Name": "C# Level 1",
 "LinkedinProfileId": 3061
},
 "Id": 4419,
 "Name": "C# Level 2",
 "LinkedinProfileId": 3061
},
 "Id": 4420,
 "Name": "Fundamentals of Programming",
 "LinkedinProfileId": 3061
},
```

```
"Id": 4421,
  "Name": "My projects on GitHub",
  "LinkedinProfileId": 3061
  "Id": 4422,
  "Name": "TOEIC",
  "LinkedinProfileId": 3061
}
"LinkedinSkill": [
  "Id": 27522,
  "Name": "C#",
  "EndorsedCount": 14,
  "LinkedinProfileId": 3061
  "Id": 27523,
  "Name": "OOP",
  "EndorsedCount": 14,
  "LinkedinProfileId": 3061
  "Id": 27524,
  "Name": "Git",
  "EndorsedCount": 13,
  "LinkedinProfileId": 3061
  "ld": 27525,
  "Name": "LINQ",
  "EndorsedCount": 11,
  "LinkedinProfileId": 3061
  "Id": 27526,
  "Name": "Visual Studio",
  "EndorsedCount": 11,
  "LinkedinProfileId": 3061
 },
  "Id": 27527,
  "Name": ".NET",
  "EndorsedCount": 11,
  "LinkedinProfileId": 3061
```

# 2.3 GetByUserame

Get specific linkedin profile by username

# Request

Method	URL
Get	/api/linkedin/user/{username}

## **Parameters**

From	Туре	Value
URL	username	levon-hakobyan-007172a4

Status	Туре	Response
200 OK	LinkedinProfile	Full linkedin profile and array of Education, Experiences, Interests, Languages and Skills of that profile
		<pre>{   "Id": 2459,   "Username": "levon-hakobyan-007172a4",   "FullName": "Levon Hakobyan",   "Specialty": "Frontend Developer at MicroBiz Cloud Point of Sale",   "Location": "Armenia",   "Education": "Yerevan State University",   "Company": "MicroBiz Cloud Point of Sale",   "ConnectionCount": 0,   "Website": null,   "Phone": null,   "Email": null,   "Birthday": null,   "Connected": null,   "ImageUrl": null,   "LinkedinEducation": [   {     "Id": 2089,     "Name": "Yerevan State University",     "Time": "2007 - 2010",     "LinkedinProfileId": 2459,     "Title": "Master's Degree of Optics/Optical Sciences"</pre>

```
"ld": 2090,
  "Name": "Yerevan State University",
  "Time": "2001 - 2005",
  "LinkedinProfileId": 2459,
  "Title": "Bachelor's Degree of physics"
  "ld": 2091,
  "Name": "34 middle school",
  "Time": null.
  "LinkedinProfileId": 2459,
  "Title": null
"LinkedinExperience": [
  "ld": 3537,
  "Company": "MicroBiz Cloud Point of Sale",
  "Title": "Frontend Developer",
  "Time": "2017 - Present",
  "LinkedinProfileId": 2459,
  "Location": "Yerevan"
  "ld": 3538,
  "Company": null,
  "Title": "Title
                 Project Manager",
  "Time": "Sep 2016 - Present",
  "LinkedinProfileId": 2459,
  "Location": "Yerevan"
  "ld": 3539,
  "Company": null,
  "Title": "Title
                  Technical Manager",
  "Time": "Dec 2013 - Present",
  "LinkedinProfileId": 2459,
  "Location": "Interactive World"
},
"LinkedinInterest": [
  "Id": 4935,
  "Name": "Yerevan State University",
  "FollowersCount": 17154,
  "LinkedinProfileId": 2459
 },
  "ld": 4936,
  "Name": "React Developers - Discuss ReactJS and
```

```
React Native",
   "FollowersCount": 0,
   "LinkedinProfileId": 2459
   "ld": 4937,
   "Name": "Unity Technologies",
   "FollowersCount": 77360,
   "LinkedinProfileId": 2459
   "ld": 4938.
   "Name": "Interactive World",
   "FollowersCount": 96,
   "LinkedinProfileId": 2459
  },
   "ld": 4939,
   "Name": "Yii framework",
   "FollowersCount": 0,
   "LinkedinProfileId": 2459
   "ld": 4940,
   "Name": "Ginosi Apartels & Dinosi Hotels",
   "FollowersCount": 1390,
   "LinkedinProfileId": 2459
 "LinkedinLanguage": [],
 "LinkedinSkill": [
   "Id": 16703,
   "Name": "JavaScript",
   "EndorsedCount": 13,
   "LinkedinProfileId": 2459
   "Id": 16704,
   "Name": "PHP",
   "EndorsedCount": 9,
   "LinkedinProfileId": 2459
   "Id": 16705,
   "Name": "yii2",
   "EndorsedCount": 4,
   "LinkedinProfileId": 2459
   "Id": 16706,
   "Name": "Project Management",
```

```
"EndorsedCount": 6,
   "LinkedinProfileId": 2459
 },
   "Id": 16707,
   "Name": "MySQL",
   "EndorsedCount": 10,
   "LinkedinProfileId": 2459
   "ld": 16708,
   "Name": "CSS",
   "EndorsedCount": 7,
   "LinkedinProfileId": 2459
   "Id": 16709,
   "Name": "jQuery",
   "EndorsedCount": 7,
   "LinkedinProfileId": 2459
 },
   "Id": 16710,
   "Name": "AJAX",
   "EndorsedCount": 6,
   "LinkedinProfileId": 2459
   "ld": 16711,
   "Name": "React.js",
   "EndorsedCount": 5,
   "LinkedinProfileId": 2459
   "Id": 16712,
   "Name": "Yii",
   "EndorsedCount": 6,
   "LinkedinProfileId": 2459
 }
]
```

### To be continued ...