http://jslice.sourceforge.net

JSlice is a tool released from my research group, and used in many groups all over the world for various purposes including teaching and research. We detail the basic flow of Chronos, and this is followed by the current user list. JSlice also won the Tan Kah Kee award in 2008.

JSlice, a Dynamic Slicing Tool for Java Programs
Abhik ROYCHOUDHURY, WANG Tao, GUO Liang
National University of Singapore

Aim/Objective:
Too many functionalities in our daily life are software controlled, and reliable software development is thus of great importance. JSlice is a tool for program debugging and comprehension. It partially automates the search for programming errors, thereby improving software quality as well as programmer productivity.

Why the need?
Current software debugging tools require active participation from the programmer to find the cause(s) of an observable error. This makes software debugging tedious and extremely time-consuming. JSlice reduces the programmer's burden by quickly and automatically identifying likely causes of a given error.

How does it work?
JSlice highlights a fragment of the program that is likely to be responsible for a particular unexpected behavior. This is achieved via automated identification of program dependency chains in an execution trace. To scale up the semantic analysis to huge traces of real-life programs, JSlice employs certain key technical innovations. These include online compression of the execution trace, direct analysis of the compressed trace, as well as analysis at the machine-readable bytecode level to handle programs containing third-party libraries. JSlice works for any Java program and has a user-base spread over 20 different countries. The tool is available from http://jslice.sourceforge.net/
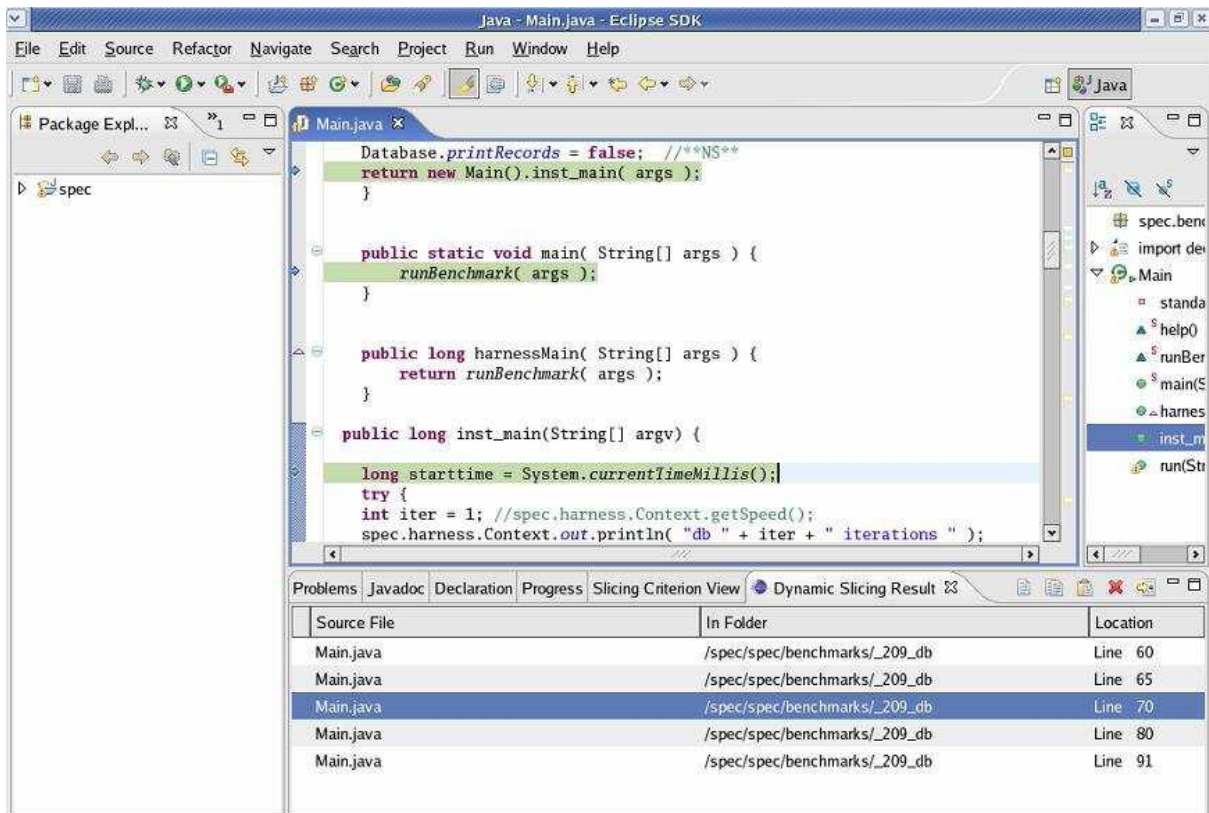
Figure 1: Screenshot of the JSlice tool. Highlighted lines appear in green.

```
1. void setRunningVersion(boolean runningVersion){
2.   if( runningVersion ) {
3.       savedValue = value;
     }
     else{
4.       savedValue = " ";
     }
5    this.runningVersion = runningVersion;

6.   if ( savedValue == null ){
```

Example of program dependency

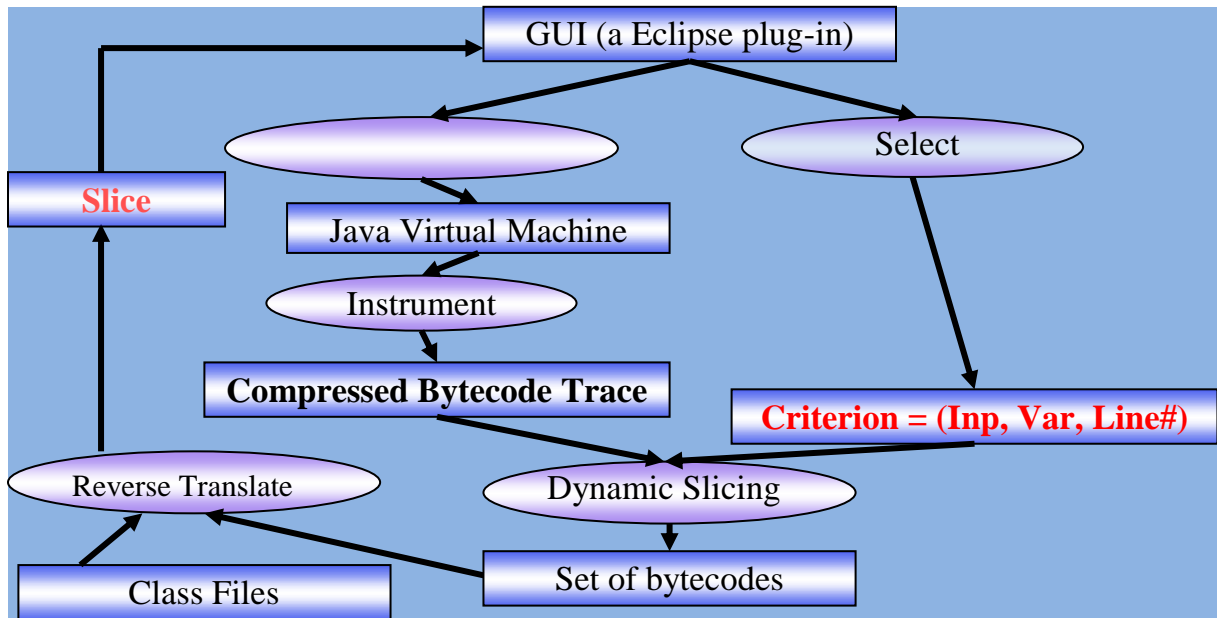Figure 2: JSlice infers program dependency chains leading to an error, and summarizes them in a bug report.

Figure 3: Architecture of JSlice tool

User list of JSlice

The current user list of JSlice appears in the following pages

S. No	Name	Email	Organization
1	Ferenc Fischer	fischer.ferenc@gmail.com	University of Szeged, Hungary
2	Andrew Ko	ajko@cs.cmu.edu	Carnegie Mellon University
3	Hiba	hiba1686@hotmail.com	American University of Beirut
4	zhuangxujie	zhuangxujie2@163.com	NA
5	Marwa Ghali	marwa_alghali@hotmail.com	American University of Beirut
6	Wes Masri	wm13@aub.edu.lb	American University of Beirut
7	Jan Rupar	jan.rupar@gmail.com	McGill University
8	Can Uck	canuckpmet@yahoo.ca	NA
9	Marion Sebastien	sm244@kent.ac.uk	University of Kent
10	Ahmed Sallam	a.sallam@yahoo.com	NA
11	sean lee	seanangel@hotmail.com	Korea University
12	charles	cs_bd@rediffmail.com	NA
13	Waldo de Lucca	wllucca@unimep.br	UNIMEP - Universidade Metodista de Piracicaba
14	marcio	mbarbosar@unimep.br	UNIMEP - Universidade Metodista de Piracicaba
15	umang sharan	umangsh@gmail.com	Purdue university
16	Vincent Hoon	vincent.hoon@gmail.com	Purdue University
17	Laurentiu Vanciu	radu@wayne.edu	Wayne State University
18	zhixue he	210513004@suda.edu.cn	Soochow university, china
19	Jarbas Jocenio	jjocenio@bol.com.br	Universidade Federal de Campina Grande
20	Liu Hui	Hui.Liu@pmail.ntu.edu.sg	NTU
21	Andreas Schindler	Schindler-Andreas@gmx.de	University Passau, in Germany.
22	Ken Koster	ken@agitar.com	Agitar Software, Inc.
23	Hao Fu	zjufuhao@gmail.com	ZheJiang University, China
24	Muhammad Bari	mnb147@psu.edu	Pennsylvania State University
25	Rui Abreu	r.f.abreu@tudelft.nl	Delft University of Technology
26	Tu Weixin	tu@intellilink.co.jp	NTT DATA INTELLILINK CORPORATION
27	Carlos Matos	cmm22@leicester.ac.uk	University of Leicester
28	Wolfgang Mayer	wolfgang.mayer@cs.unisa.edu.au	University of South Australia
29	wang huan	son_wh@yahoo.com.cn	Guangdong University of Technology
30	ysong	ysong@icu.ac.kr	ICU (Information and Communication University), Korea
31	Suresh Thummalapenta	suresh.thummalapenta@gmail.com	North Carolina State University, Raleigh
32	Yingzhou Zhang	zhangyz@njupt.edu.cn	Nanjing University of Post & Telecommunications in China
33	Nitin Goel	ngoel@fla.fujitsu.com	Fujitsu Labs
34	Cemal Yilmaz	cyilmaz@us.ibm.com	IBM T. J. Watson Research Center
35	Somaye Arabi	atarabi@comp.iust.ac.ir	Atefe arabi- IUST university
36	Chengying Mao	maochy@yeah.net	School of Software, Jiangxi University of Finance and Economics
37	Pepe	djgato@gmail.com	Politecnica of Valencia
38	Jochen Quante	quante@informatik.uni-bremen.de	University of Bremen, Germany
39	Abbas Heydarnoori	aheydarn@cs.uwaterloo.ca	University of Waterloo, Canada
40	Mahantesh Hosamani	mahantes@cs.iastate.edu	Iowa State University
41	Sameer Madan	sammadan@in.ibm.com	IBM India Research Lab, New Delhi
42	Shirley Cohen	shirleyc@cis.upenn.edu	UPenn
43	Alvaro Soria	asoria@exa.unicen.edu.ar	ISISTAN Research Institute,UNCPBA University Argentina

44	Takahisa Iwama	t-iwama@cp.jp.nec.com	Common Platform Software Research Laboratories, NEC
45	Fayezin Islam	nitrousfiz@googlemail.com	King's College London
46	Shirley Cohen	shirleyc@cis.upenn.edu	UPenn
47	Priya	priyainlive@tce.edu	Thiagarajar College of Engineering, Madurai
48	Adam Czepil	adam.czepil@nsn.com	Nokia Siemens Networks
49	Rahul S. Jiresal	rahulsj007@gmail.com	MIT, Pune, India
50	Hitesh Sajnani	hemanth.makkapati@tcs.com	Tata Consultancy Services Ltd
51	Kanmani Raja	kanmaniraja.p@gmail.com	NA
52	Yuming Zhou	csyzhou@comp.polyu.edu.hk	Department of Computing, Hong Kong Polytecnic University
53	Kevin Streit	kevin.streit@googlemail.com	Saarland Univ Germany (under SE chair of A. Zeller)
54	Tao Xie	xie@csc.ncsu.edu	North Carolina State University
55	Giriprasad Sridhara	giri@UDel.Edu	University of Delaware, USA
56	Basma Fouad	cool_zero_010@yahoo.com	Zagazig University, Egypt
57	william hunt	wahunt@gmail.com	univ of texas el paso (undergrad student)
58	tiago ramos	ei05079@fe.up.pt	Faculdade de Engenharia da Universidade do Porto, Potrugal
59	eshrak hassan	ashosha20000@hotmail.com	Cairo University (premaster student)
60	imad abdullah	imad@cs.queensu.ca	Queens University, Canada
61	Martin Weiglhofer	weiglhofer@ist.tugraz.at	Inst for Software Technology, Graz University of Technology
62	Wei Wang	simonwang@sjtu.edu.cn	Shanghai JiaoTong U, China
63	mehmet ali irmak	mehmet@sbox.tugraz.at	Tu Graz austria
64	wang jian	wangj@ust.hk	HKUST
65	Christopher McBride	cmcbride@cis.strath.ac.uk	Strathclyde University
66	He Zhi Xue	hezhixue@gmail.com	Soochow Univ, China
67	Radu Vanciu	radu@wayne.edu	Wayne state univ USA
68	Hao Dan	haod@sei.pku.edu.cn	Peking University China
69	Jie	happyjie717@126.com	Hunan University, China
70	Wang Jiajie	gaga_wang@ustc.edu	University of Science and Technology (USTC) China
71	Michael Milway	mjm@uow.edu.au	University of Wollongong, Australia
72	Tang Yu	softwarety@gmail.com	Northeastern univ China
73	Saswat Anand	saswat@cc.gatech.edu	Georgia Tech
74	Mohammed owairdi	owairdi@dmu.ac.uk	De Monfort Univ, UK
75	Jayakumar HG	jayakumar@csa.iisc.ernet.in	IISc, India
76	Seema Jahan	jehan@student.tugraz.at	Tu Graz austria
77	Deepak Sharma	Deepak.Sharma.FEB@fmr.com	Majesco inc. india
78	Chen Xi	chenxi1978@gmail.com	EAM International Pte Ltd, Singapore
79	Amal A. Al-Shargabi	amal_alshargabi@yahoo.com	University technology Mara, Malaysia
80	Andrew E. Sentosa	andrews@comp.nus.edu.sg	NUS
81	Ri Hyon Sul	rihyonsu@comp.nus.edu.sg	NUS
82	Tran Duy Thao	tdthao@fit.hcmuns.edu.vn	University of Science, Vietnam National University
83	Christiana Stylianou	christiana.s@cytanet.com.cy	University of Cyprus, Cyprus
84	Marcelo d'Amorim	damorim@cin.ufpe.br	Federal University of Pernambuco
85	Dave Hisey	dhisey@meritsystemsllc.com	Merit Systems LLC
86	Alessandro Marcheto	marchetto@fbk.eu	IRST, Italy

87	Kevin Xin	xintianqing@gmail.com	Computer Science and Enginerring of Dalian University of Technology, PRC
88	Clemens Hammacher	hamcle@studcs.uni-sb.de	Saarland University, Germany
89	Ionulescu Adelina	adelina_ionulescu@yahoo.com	Politehnica Timisoara, Romania
90	Bharathi Seshadri	seshadri_bharathi@yahoo.com	UC Davis
91	Sai Zhang	saizhang@sjtu.edu.cn	School of Software, Shanghai Jiao Tong University
92	Mayank Mittal	mayank_mittal_01@yahoo.co.in	Indian institute of Engineering and Technology, Kharagpur
93	Soubhagya Sankar Barpanda	s.barpanda@yahoo.com	NIT Rourkela, India
94	Ajay K Menon	Ajay_K@mindtree.com	MindTree Ltd (India) --- an IT consulting and services firm
95	xiaoliang chen	xlchen2000@gmail.com	Fudan U, China
96	M. Shivanathan	shivamohan2002@yahoo.co.in	Kongu engineering college, Tamilnadu, India
97	Paul Baclace	pbaclace@jaxtr.com	
98	Fabrizio Pastore	fabrizio.pastore@disco.unimib.it	University of Milano Bicocca
99	Jie Liu	ljie@otcaix.iscas.ac.cn	Institute of Software, Chinese Academy of Sciences
100	Johannes Wilke	johannesjwilke@gmail.com	University of Stellenbosch
101	Wanzhi Wen	wenwanzhi@126.com	Southeast University in China
102	Sharmelesomu Malubindhu	sharmelesomu@yahoo.com	Thiagarajar college of engineering, madurai
103	S.Suganya and S.Sharmele	suganya91@tce.edu	Thiagarajar College of Engineering, Madurai
104	Liu Xudong	cameran@hit.edu.cn	Harbin Institute of Technology
105	Yantie	yantiemy@163.com	GuangXi university of China
106	Jobson Ronan	jobson@gmail.com	Informatics Center from Pernambuco's Federal University, Brazil
107	Jianhua Sun	hua8422@163.com	China University of Minning and Technology
108	Rafael Ceballos	ceballos@lsi.us.es	University of Sevilla, Spain. Languages and Computer Systems
109	Mauro Santoro	.santoro@disco.unimib.it	University of Milano-Bicocca
110	Pku	yjb_pku@yahoo.com.cn	Beijing University, China
111	Mihai Nica	mihai.nica@ist.tugraz.at	Institute for Software Technology
112	J.Santhosh Kumar	jssanthosh@yahoo.co.in	Chennai,India
113	Dacong Yan	tonywinslow1986@gmail.com	Shanghai Jiao Tong University
114	RAKESH M.G.	rakesh_bmse@yahoo.co.in	IIIT, India
115	Tien N. Nguyen	tien@iastate.edu	Department Iowa State University Ames,
116	Haihao Shen	haihaoshen@sjtu.edu.cn	Shanghai Jiao Tong University
117	Vishal	vishavishal@gmail.com	TCE
118	Lars de Ridder	lacdr@science.uva.nl	University of Amsterdam
119	Suman	suman.karumuri@gmail.com	Brown University, Providence, RI.
120	Chaitanya Prakash Namburi	chaitanyaprakash.n@gmail.com	Georgia Tech
121	Guri TUNA	gt_tuncel@hotmail.co.uk	West London Brunel University, Uxbridge UK
122	Nagy Mostafa	Nagy Mostafa [nagy@cs.ucsb.edu]	University of California-Santa Barbara, USA
123	Li heqian	李和千 [liheqian@gmail.com]	Dalian University of Technology, China
124	Charley Wang	闯 王 [wain2010@yahoo.com.cn]	Beijing University of Posts and Telecomunication
125	Dr Simon Miles	Simon Miles [simon.miles@kcl.ac.uk]	Department of Computer Science Kings College London, UK

126	Hyunsook Do	hyunsook.do@ndsu.edu	North Dakota State University
127	Connie H Bao	Bao, Haoying [haoying.bao@kcl.ac.uk]	Crest Centre, Dept. of Computing, King's College London
128	James Hamilton	[mrjameshamilton@gmail.com]	Goldsmiths, University of London
129	Wei Fu-qiang	weifuqiang [wwwnwfq@163.com]	China University of Mining and Technology
130	Xiaobing Sun	孙小兵 [sundomore@163.com]	Southeast university,China
131	Bhaskar	BHASKAR YS [bhaskarys009@gmail.com]	Bapuji Institute of Technology,Davanagere
132	Marius Minea	Marius Minea [marius@cs.upt.ro]	Marius Minea, Politehnica University of Timisoara
133	Rafael Ceballos	ceballos@lsi.us.es	University of Sevilla, Spain. Languages and Computer Systems,
134	Yan Hu	huyan [wo_huyan@126.com]	Dalian University of Technology Usage
135	Michael louca	loukam@gmail.com	University of Cyprus, Cyprus
136	Phil James	cspj@swansea.ac.uk	Swansea University
137	Muthu kumar	kumaranmuthu2008@gmail.com	Thiagarajar College of Engineering,Madurai
138	Nguyen Anh Cuong,	anhcuong@nus.edu.sg	National University of Singapore
139	Andreas Bollin	andi@isys.uni-klu.ac.at	University of Klagenfurt
140	Deepak Dhungana	Deepak.Dhungana@jku.at	Johannes Kepler University Linz, Austria
141	Abolfazl Rezvan	abolfazl.rezvan@gmail.com	Idehgostar Idehgostar Research, Inc. Iran
142	Chan Ngo	chan.ngo2203@gmail.com	ETH Zurich
143	Hyesun Lee	compial@gmail.com	Pohang University of Science and Technology (POSTECH)
144	Mohsin Engineer	mohsin.professional@gmail.com	Program Analysis Lab Hanyang university South Korea
145	Rkula	"Raula Kula" <raula-k@is.naist.jp>	Nara Institute of Science and Technology Japan.
146	Peter	bui dung <gunnrose007@yahoo.com>	French software company.
147	Thaise Yano	Thaise Yano <thaiseyano@hotmail.com>	Unicamp
148	Hristo Borisov	Hristo Borisov <hristo.borisov@musala.com>	Musala Soft
149	袁冠	袁冠 <yuanguan@126.com>	China university of mining and tecnology
150	Krishnaprasad H G	Krishnaprasad H G <krishnaprasadhg@gmail.com>	Student of Bachelor of Engineering
151	Hetong Li	Hetong Li <li186@purdue.edu>	Purdue University.
152	李丰	李丰 <lifeng2005@ict.ac.cn>	Chinese Academy of Sciences
153	donglai.fu	eastcoming <eastcoming@163.com>	north university of china
154	Ross Gore	Ross Gore <ross.gore@gmail.com>	University of Virginia
155	Raghu Muni	Raghu M <raghu.muni@gmail.com>	Snipe IT Solutions
156	Yan Hu	Yan Hu <yhu6@mail.ustc.edu.cn>	University of Science and Technology of China
157	Toru Inoko	Toru Inoko <inoko@scs.co.jp>	Sumisho Computer Systems
158	ding yuejin	dingyj <dingyj@uestc.edu.cn>	UESTC
159	Ying Ma	may <may@uestc.edu.cn>	University of Electronic Science and Technology of China (UESTC)
160	黄晋	黄晋 <derick0320@gmail.com>	Huazhong University of Science and technology
161	x korat	x korat <xkorat@gmail.com>	HUST
162	Dave Binkley	Dave Binkley <binkley@cs.loyola.edu>	loyola university in maryland
163	Vadim Mazalov	Vadim Mazalov <vadim.mazalov@gmail.com>	Kuban State University, Krasnodar, Russia
164	Agim Rama	Agim Rama <agim.rama@edu.uni-klu.ac.at>	UNI Klagenfurt - Alpen-Adria-Universität Klagenfurt, Austria

165	Eliza	xiaofang@mail.eecis.udel.edu	University of Delaware
166	zhang hong chang	6211026@163.com	CUMT
167	weiying	weiying_0913 <weiying_0913@126.com>	North China University Of Technology
168	Yang Zhongjun	YANG ZHONGJUN <yangzhj86@gmail.com>	Nanjing University, China
169	Gon Chun	Byung-Gon Chun <bgchun@gmail.com>	
170	christodoulos	Christodoulos Michael <vigilant023@hotmail.com>	University Of Cyprus
171	Visalatchi Muthuraman	Visalatchi Muthuraman <vmuthura@oakland.edu>	Student in oakland.edu
172	Anupama	anupama.deepak@gmail.com	CUSAT
173	Songsong Zhao	<songsongzhao_123@hotmail.com>	NYIT.
174	Xiaofeng Xu	xxfeng@xmu.edu.cn	Xiamen University, China
175	João António Paz	João Paz <pg12812@alunos.uminho.pt>	University of Minho
176	Yongwei Duan	段永伟 <mg0832005@software.nju.edu.cn>	Software Institue of Nanjing University, China
177	Christos Kyriacou	Xri$t0$ Kyriak0u <cs05ck4@cs.ucy.ac.cy>	University Of Cyprus
178	Mingyue Jiang	jiang_my <jiang_my@126.com>	Center of Math Computing and Software Engineering, Zhejiang Sci-Tech University.
179	Sergejus Sosunovas	Sergejus Sosunovas <sergejus.sosunovas@gmail.com>	Vilnius Gediminas TU, Lithuania
180	Venkatesh Laxminarayanan	Venkatesh Laxminarayanan <vlaxmina@gmu.edu>	George Mason University
181	Farah Tahmasbi	Farah Tahmasbi <ftahmasbi@yahoo.com>	University of Michigan
182	Marat Daishev	Marat Daishev <mdaishev@gmail.com>	Motorola
183	LiuJia	sonic7745@sina.com	Xi'an Univercity of Technology
184	Yan Lei	雷晏 <kooleryan@gmail.com>	Central South University, China
185	Alex Loh	Alex Loh <alexloh@cs.utexas.edu>	University of Texas at Austin
186	Antonis Kourras	Antonis Kourras <antonis_10@hotmail.com>	University Of Cyprus
187	Christoph Hemker	Christoph <ektoplast@web.de>	Westfälische-Wilhelms-Universität Münster
188	Zhongxian Gu	Zhongxian Gu <zgu@ucdavis.edu>	University of California, Davis
189	Sean Ye	"yegang" <yegang@nlsde.buaa.edu.cn>	Beihang University/China
190	Patrick Jermann	Patrick Jermann <Patrick.Jermann@epfl.ch>	EPFL
191	Yiqing Zhu	XGDJ-alex@sjtu.edu.cn	JiaoTong University, Shanghai, China.
192	Liu Xi	"symbolic" <13974856420@yeah.net>	Hunan University in China
193	sanyogita yadav	Sanyogita Yadav <sanyogitayadav@rocketmail.com>	Amity School of Engineering and Technology, New Delhi
194	Sherry Lee	pipi666661 <pipi666661@126.com>	Peking University of China
195	Abboud Rida	<abboud2000_99@yahoo.com>	RSS company (Jordan)
196	Kien, Truong trung	truong trung kien <kientruongtrung@gmail.com>	Department of Software Technology-UET-VNU
197	Elton Alves	Elton Alves <eltonrenan.alves@gmail.com>	Elton Alves, (UFPE)
198	To Van Khanh	To Van Khanh <khanhtv@vnu.edu.vn>	Vietnam National University
199	Marcel karam	Marcel karam	American University of Beirut
200	Johan de Jong	Jong, J.P. de <J.P.d.Jong@student.tue.nl>	echnische Universiteit Eindhoven, Holland
201	kuldeep dhariwal	kuldeep dhariwal <kuldeep.dhariwal4@gmail.com>	home, student
202	Notario Airlangga Putra	rio airlangga <sihidungbesar@gmail.com>	Sepuluh Nopember Institute of Technology
203	Gunarto Lalala	Pipin Art <gunarto90@gmail.com>	ITS (Institut Teknologi Sepuluh Nopember)
204	N.SASIREKHA	sasi rekha <n_sasirekh@yahoo.co.in>	karpagam university coimbatore, tamilnadu
205	Hoon Choi	훈 최 <choihoon4444@hotmail.com>	Shizuoka University in Japan
206	jingyinhang	jingyinhang <jingyinhang@baidu.com>	PKU
207	Putri Nikensasi	Putri Nikensasi <putri.nikensasi@yahoo.co.id>	ITS(Institut teknologi Sepuluh Nopember)

208	Argyro Kazaki	ARGYRO KAZAKI <argyro.kazaki@yahoo.gr>	Athens University of Economics and Business.
209	Madhukar N Kedlaya	Madhukar Kedlaya <mkedlaya@cs.ucsb.edu>	UCSB
210	Nguyen Trung Kien	Nguyen Trung Kien <trungkien2288@gmail.com>	Applistar Company
211	vaibhav srivastava	Vaibhav Srivastava <vaibhav30388@yahoo.com>	amity university
212	Li Yihan	liyihannew <liyihannew@126.com>	BeiHang University in China
213	Vijayraj Thangaraj	vijay <vthangar@iit.edu>	Illinois Institute of Technology
214	T.J. Hartnett	tjh26@buffalo.edu	University of Buffalo Computer Science Dept.
215	Swaminathan J	Swaminathan J <swaminathanj@am.amrita.edu>	Amrita Vishwa Vidyapeetham, Amritapuri
216	Mohsen Ben Kahia	Ben Kahia, Mohsen FORNATL, TU <mbenkahi@nps.ed	Naval postgraduate school
217	Greta Yorsh	Greta Yorsh <gretay@gmail.com>, Greta Yorsh <gretay	IBM Research
218	Ling Zhang	Ling Zhang <zljovia@gmail.com>	Sun Yat-sen University, China.
219	Richard Xiao	Richard Xiao <richardxx@cse.ust.hk>	HKUST
220	Yufeng Yin	Tom Ian <imwmwmcom@yahoo.com.cn>	Shanghai Jiaotong University
221	Prasad Kulkarni	Prasad Kulkarni <kulkarni@eecs.ku.edu>	University of Kansas
222	dl wang	<wuhecuizao@yahoo.com.cn>	Peking University of China
223	Ren Heng	rh_824 <rh_824@126.com>	hunan university China
224	Sabrina de F. Souto.	Sabrina de Figueiredo Souto <sfs@cin.ufpe.br>	Sabrina de Figueirêdo Souto/Federal University of Pernambuco - UFPE, Brazil
225	Arup Ranjan Sahoo	Arup Ranjan Sahoo <arup.softeng@gmail.com>	MTech Student
226	Philip Matuskiewicz	"Phil Matuskiewicz" <pjm35@buffalo.edu>	University at Buffalo
227	Daqing Yun	dqyun <dqyun@foxmail.com>	Xidian University, Xi'an, China.
228	Benmadani Fayçal	BENMADANI Fayçal <f.benmadani@gmail.com>	Farhat Abbas University (Algeria)
229	mingjie Lin	mingjie Lin <mingjie.lin@gmail.com>	UCF
230	ABHISHEK SHRESTHA	ABHISHEK SHRESTHA (RIT Student) <axs1430@rit.ed	Rochester Institute of Technology
231	Alexandre Blondin	Alexandre Blondin <blondia0@etu.unige.ch>	Blondin , University of Geneva.
232	Iftikhar Ahmad	"Iftikhar Ahmad" <iftahmad@KSU.EDU.SA>	king Saud university.
233	ankush garg	ankushgargcse07111@gmail.com	Thapar University Patiala
234	yangbo	杨波 <yangbo@cse.buaa.edu.cn>	Beihang university
235	Kume Izuru	Kume Izuru kume@is.naist.jp	Nara Institute of Science and Technology
236	Liping, Gao	liping gao ofloveless.gao@gmail.com	Hong Kong university of science and technology
237	Mario Sangiorgio	Mario Sangiorgio sangiorgio@elet.polimi.it	Politecnico di Milano
238	JYOTI ARORA	JYOTI ARORA aroraj2010@gmail.com	cdac, noida
239	Keith Nixon	Keith John Nixon nixonk@tcd.ie	Trinity College, Dublin, Ireland
240	FRANCISCO AIRTON PEREIRA D,	Airton Pereira faps@cin.ufpe.br	Federal University of Pernambuco BRAZIL
241	Hu Yan	hu yan <wohuyan@gmail.com>	DLUT China
242	Takashi Ishio	Takashi Ishio ishio@ist.osaka-u.ac.jp	Osaka University
243	Guo Jun	郭俊 jguo586@gmail.com	Department of CS at Shanghai Jiao Tong University
244	Birgit Hofer	Birgit Hofer bhofer@ist.tugraz.at	Graz University of Technology
245	Tran Ngu Binh	tnbinhhueaptech@gmail.com	Huesoft.
246	P.Divya Pragna	divyapragna.vit@gmail.com	VIT university
247	jayadeep pati	jayadeeppati@gmail.com	NIT Rourkela
248	Pantelis Yiasemis	ftored@gmail.com	Cyprus University of Technology.
249	Verónica Pazos Corella	vpazos@openfinance.es	Verónica Pazos, OpenFinance
250	Coope, Sebastian	Sebastian.Coope@liverpool.ac.uk	University of Liverpool

251	Chris Murphy	cdmurphy@seas.upenn.edu	Univ of Pennsylvania
252	高庆	gaoqing0503@gmail.com	Peking University of China
253	Masayuki Hirano	mh-13@doi.ics.keio.ac.jp	Hirano Masayuki, Keio University
254	majed abusafiya	majedabusafiya@gmail.com	Ahliyya Amman University
255	Peter Ohmann	ohmann@cs.wisc.edu	University of Wisconsin in Madison
256	haijun wang	hjwang.china@gmail.com	xi'an jiaotong University
257	XiaoDong Zhang	xdzhangjd@gmail.com	Xi'an Jiaotong University
258	mehak	mehak.email2me@gmail.com	thapar university
259	Nanxi Chen	nchen@tcd.ie	Trinity College Dublin
260	Dr. ali alazawwi	aalezway@philadelphia.edu.jo	Philadelphia University, Amman, Jordan
261	neha aggarwal	neha.aggarwal2807@gmail.com	Delhi university Computer Science
262	Jiabin Xia	rexpie@gmail.com	Shanghai Jiaotong University
263	hoda banki	h banki banki.h@gmail.com	University of Kashan
264	Mohamad Mehdi	mehdi morovati mm.morovati@gmail.com	University of Kashan
265	Georg Hinteregger	Georg Hinteregger georg.hinteregger@student.tugraz.at	TU Graz
266	Jin Chen	chenjin0411@hotmail.com	State Key Laboratory of Software Development Environment BUAA
267	Mehdi Azarmi	mazarmi@purdue.edu	Purdue university
268	Youhei Adachi	yuadachi@intellilink.co.jp	NTT DATA INTELLILINK CORPORATION
269	Jingxuan Tu	tujingxuan@126.com	Nanjing University in China
270	Daniel Toll	daniel.toll@lnu.se	Linneus University, Kalmar Sweden
271	su ping	Su_Ping369@163.com	Nanjing University
272	Lakshmi Narasimhan	bs.lakshmi.narasimhan@gmail.com	Aveksa
273	Li Pan	lipanpally@gmail.com	NWPU, a university in Xi'an,China
274	Sanik Bajracharya	sbajracharya@unomaha.edu	University of Nebraska at Omaha
275	lin wang	linwang@jaist.ac.jp	JAIST
276	Corey Malone	corey.malone@intel.com	Intel
277	Dekel Cohen	dekelcohen@gmail.com	Tel-Aviv university
278	Qiang Sun	sun-qiang@sjtu.edu.cn	Shanghai Jiao Tong University
279	Sang-hyun. Park	withmelody@gmail.com	KW University
280	Mohd Zanes Sahid	zanes.sahid@yahoo.com	University Technology Mara
281	Gregg Rothermel,	Gregg Rothermel <grother@cse.unl.edu>	University of Nebraska - Lincoln
282	Christof Rabensteiner	christof.rabensteiner@student.tugraz.at	Technical University of Graz, Austria
283	QinZiShan	susan_ecnu@163.com	East China Normal University
284	Preeti Sikka	preeti sikka <preetisikka@gmail.com>	Lovely Professional University.
285	Martha Aparicio Quilla	ahtram85@gmail.com	Universidad Nacional de San Agustin - Arequipa, Peru
286	Mincheol Kim	mckim8686@gmail.com	Inha University
287	Hemant Kochale	hemantkochale@gmail.com	inbotics research lab airoli(INDIA)
288	Matsuo	k.matsuo@a6.keio.jp	Keio University
289	lei ma	malei.2005@gmail.com	university of tokyo
290	Rosemary Hamlin	rmeagleone@msn.com	Univ of Nebr at Omaha
291	shama mittal	shama1mittal@gmail.com	Thapar University Patiala
292	Silvia Mascaretti	s.mascaretti@campus.unimib.it	Università degli studi Milano Bicocca
293	Rahul Garg	lavkushmobilestore@gmail.com	Lav Kush
294	Hugo Motte	locale@gmx.de	developer

295	Siyuan Jiang	Siyuan Jiang <sjiang1@nd.edu>	University of Notre Dame
296	Ahad Rafati	"Ahad Rafati" <ahad.rafati@yahoo.co.uk>	rasa company
297	chen zhifei	chen zhifei <chenzhifei731@163.com>	Nanjing University
298	Nguyen Trinh Dong	Trinh Dong Nguyen <nguyentrinhdong@gmail.com>	Hai Phong Private University
299	Bo-Hyun Kwack	alintsz@naver.com	University of Ulsan
300	BIBHUTI BHUSAN DASH	bibhuti.bhusan@neobytes.com	Neobytes
301	王红阳 (wang hongyang)	thomasking@cumt.edu.cn	CUMT (China Universitu of Mining and Technology)
302	Mahesh Dasari	maheshdasarii@gmail.com	DreamTek
303	subhrakanta panda	subhrakanta11@gmail.com	NIT Rourkela
304	Anushruti Sharma	anushruti10116@gmail.com	PDPM Indian Institute of Information Technology, Design and Manufacturing abalpur,Madhya Pradesh,India
305	S Vikram	vikram.s@oculusit.in	Oculus
306	Bart van Delft	vandeba@chalmers.se	Chalmers Technical University