Daniar Heri Kurniawan

The Founder of **Sci-Learn.com** and **Gudhang.com**   **https://daniarheri.com**

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Research Interests: Parallel and Distributed System, Computational Science, and e-Learning.

EDUCATION

2012 - 2017   **Institut Teknologi Bandung (ITB)**, Bandung, Indonesia
Bachelor in Computer Science, graduated with cum laude and GPA 3.54 out of 4.00

PUBLICATIONS

"Sci-Learn: A Novel E-Learning Platform Based on Gamification and Social Media Approach" Daniar H. Kurniawan and Yani Widyani, *International Conference on Electrical Engineering and Informatics (ICEEI) in Langkawi, Malaysia,* November 2017.

"PBSE: A Robust Path-Based Speculative Execution for Degraded-Network Tail Tolerance in Data-Parallel Frameworks" Riza O. Suminto, Cesar A. Stuardo, Alexandra Clark, Huan Ke, Tanakorn Leesatapornwongsa, Bo Fu, Daniar H. Kurniawan, Vincentius Martin, Uma Maheswara Rao G., and Haryadi S. Gunawi, *ACM Symposium on Cloud Computing (SoCC) in Santa Clara, CA, USA,* September 2017.

"Double Chaining Algorithm: A Secure Symmetric-key Encryption Algorithm" Daniar H. Kurniawan and Rinaldi Munir**,** *International Conference on Advanced Informatics: Concepts, Theory and Application (ICAICTA) in Penang, Malaysia,* August 2016.

"Development of Multi Agent for Test of Recommendation Functions on Social Learning Platform" Shinobu Hasegawa and Daniar H. Kurniawan**,** *The Institute of Electronics, Information and Communication Engineers (IEICE) in Nagano, Japan,* May 2016.

"A New String Matching Algorithm Based on Logical Indexing" Daniar H. Kurniawan and Rinaldi Munir, *International Conference on Electrical Engineering and Informatics (ICEEI) in Bali, Indonesia,* August 2015.

POSTERS

"SCk: Scale-Checking and Debugging Scalability Bugs on One Machine" Tanakorn Leesatapornwongsa, Cesar Stuardo, Huan Ke, Jeffrey F. Lukman, Riza O. Suminto, Daniar H. Kurniawan, and Haryadi S. Gunawi, *Greater Chicago Area Systems Research Workshop (GCASR) in Chicago, IL, USA,* April 2017.

"PBSE: A Robust Path-Based Speculative Execution" Riza O. Suminto, Cesar Stuardo, Alexandra Clark, Huan Ke, Tanakorn Leesatapornwongsa, Bo Fu, Daniar H. Kurniawan, Vincentius Martin, and Haryadi S. Gunawi, *Greater Chicago Area Systems Research Workshop (GCASR) in Chicago, IL, USA,* April 2017.

"SCk: Scale-Checking and Debugging Scalability Bugs on One Machine" Tanakorn Leesatapornwongsa, Cesar Stuardo, Huan Ke, Jeffrey F. Lukman, Riza O. Suminto, Daniar H. Kurniawan, and Haryadi S. Gunawi, *The 12th USENIX Symposium on Operating Systems Design and Implementation (OSDI) in Savannah, GA, USA,* November 2016.

"Distributed Message Broker and NoSQL Database Technology for E-Learning Platform" Daniar H. Kurniawan, *Toyohashi University of Technology (TUT) International Student Program in Toyohashi, Aichi, Japan*, November 2016.

"Smart Garbage Disposal System in Bandung City: Deployment of SISA apps and Implementation of Coupled Manganese Ion Bio digester" Daniar H. Kurniawan, Rakhmatullah Y. Sutrisna, Bintang S. Puntodewo, and Ruli Fatmawati, *Tokyo Tech Indonesian Commitment Award (TICA) in Tokyo, Japan*, September 2016.

"Uncovering Latent Scalability Bugs in Just One Machine" Tanakorn Leesatapornwongsa, Huan Ke, Cesar Stuardo, Daniar H. Kurniawan, and Haryadi S. Gunawi, *Greater Chicago Area Systems Research Workshop (GCASR) in Chicago, IL, USA,* April 2016.

TALKS

Nov 2017	**"Sci-Learn: A Novel E-Learning Platform Based on Gamification and Social Media Approach"** at *International Conference on Electrical Engineering and Informatics (ICEEI)* in Langkawi, Malaysia.
Aug 2017	**"Developing Augmented Reality 3D Model of Ab Barak Landslide on Microsoft Hololens"** at The European Organization for Nuclear Research (*CERN) Openlab Summer Student Lightning Talks* in Meyrin, Switzerland.
Aug 2016	**"Double Chaining Algorithm: A Secure Symmetric-Key Encryption Algorithm"** at *International Conference on Advanced Informatics: Concepts, Theory and Application (ICAICTA)* in Penang, Malaysia.
Aug 2015	**"A New String Matching Algorithm Based on Logical Indexing"** at *International Conference on Electrical Engineering and Informatics (ICEEI)* in Bali, Indonesia.

EXPERIENCES

Sep 2015 - Present

UCare Laboratory, The University of Chicago
Research Student

- Research areas of UCare Lab are cloud computing and distributed system. This Lab is run by PhD students of UChicago under supervision of their professors.
- Focus on studying bugs at cloud computing and distributed system such as Hadoop, and Spark.
- Having weekly report and assignment that teach me to stay focus even under pressure.

Jul 2017 - Sep 2017

IT-CDA Group, CERN Openlab Summer Student Program
Research Student - Geneva, Swiss

- CERN Openlab and the IT-CDA Group in collaboration with UNOSAT are investigating novel technologies for facilitating satellite maps navigation and comparisons using VR.
- There were only 37 international students selected among 1580 applicants from all around the world.
- I developed an animated 3D model of Ab-Barak landslide on Microsoft Hololens.

Nov 2016 (10 Days)

Computer Science Laboratories, Toyohashi University of Technology
ITB's representative at TUT International Student Program 2016 - Toyohashi, Japan

- TUT is among an elite group of 22 universities selected for the Japanese government funded program, the Program for Promoting the Enhancement of Research Universities.
- I shared my experience and my research plan that tailored to TUT's research activity.
- I got an offer to do the research at TUT as part of Master Degree Research Program.

Jul 2016 - Nov 2016

AIESEC in Bandung
International Relation Coordinator - Bandung, Indonesia

- In 1949, AIESEC was established at Stockholm Congress. AIESEC is now present in more than 125 countries, with more than 80,000 members and 5,000 partners.
- International relation is a collaboration among entities (Local Committees) to support each other in terms of exchanging member and giving the best experience that AIESEC has promised.

Dec 2015 - Feb 2016

Hasegawa Laboratory, Japan Advanced Institute of Science and Technology
Intern as Research Student - Ishikawa, Japan

- We were developing Sci-Learn, e-Learning platform, and also the multi agent system to simulate user's behavior and evaluate the new feature of Sci-Learn. (https://sci-learn.com).
- Sci-Learn is developed for scalability purpose.
- The general idea of Sci-Learn is to combine Social Network (Facebook, LinkedIn, Google+) with gamification to increase learners' engagement.

Sep 2015 - Nov 2015

TD&Company Limited
Intern as Software Engineer - Tokyo, Japan

- The main businesses of TD&Company are SAP consulting service, global helpdesk service, system service, and management service. There are seven overseas branches including Hong Kong, Singapore, Netherland, and Germany.
- Run software testing for the new ERP System called Multibook.
- Implemented authentication module in the Spring Framework controller and Angular JS controller that will be used to authenticate more than 50 modules.

Jun 2015 - Jul 2015	**Global Digital Prima (GDP) Venture Inc.**
	Intern as Software Engineer - Jakarta, Indonesia

- GDP Venture is one of the leading strategic investor located in Jakarta. They invest in early and growing stages of new Tech companies such as Kaskus and Blibli.
- Reduced 98% query time and 50% query time (respectively) by migrating databases to Amazon Redshift and by optimizing the query for data retrieval.

Feb 2015 - May 2015	**AIESEC in Bandung**
	Assessment Team - Bandung, Indonesia

- Improving my English skills drastically since we use it in every single AIESEC's task.
- Experiencing cultural exchange with Japanese, Thai, Chinese, Brazilian, Australian, and others.

Dec 2014 - Jan 2015	**AIESEC Student Exchange Program**
	Intern at Sawasdee Project - Bangkok, Thailand

- I taught student and teacher (Junior HS and Senior HS) in the rural area of Thailand about English.
- Helped Chulalongkorn University's Local Committee to manage badly treated intern and find him a new school.

Jun 2014 - May 2015	**Student Association of Institut Teknologi Bandung**
	Deputy Chief of Internal Relation Division

- I was the part of Cabinet (the highest executive organization) at Institut Teknologi Bandung who manage and run student association.
- Increasing the number of students who join Student Association Cabinet by 40% in 2014, this led to the higher student participation in every cabinet's program.

Jan 2014 - Present	**Syamsi Dhuha Foundation** (www.syamsidhuhafoundation.org)
	Member (Volunteer) - Bandung, Indonesia

- Syamsi Dhuha Foundation (SDF) is an NGO that care on lupus and low vision. SDF was awarded Sasakawa Health Prize 2012 for having innovative programs.
- Managed and run the biggest World Lupus Day and World Sight Day celebrations in Indonesia. Inspired the other members to keep doing their best although they have some disease that restrict their ability.

COMPETITIONS & AWARDS

3rd Place	I participated in **CERN's annual hackathon** (Webfest 2017) by developing ParticleDart. **ParticleDart** is an AR apps built on the top of **Microsoft Hololens** which aims to impart an intuition about the types and the behavior of particles using a new technology.	2017
1st Place	**FoodsFaculty.com** aims to facilitate the growing popularity of local brands, thus giving them a larger portion of market share. **We won $7000 in IBM-STEI** competition.	2015
Semifinalist	**CariKos.id** is a web application for searching, booking, and even advertising rented rooms. This project is funded by Indonesian Ministry of High Education.	2015
1st Place	**Chemistry Olympiad** - University of Brawijaya, Malang, Indonesia.	2012
Semifinalist	**Mathematics Olympiad -** Islamic University of Malang (UNISMA), Malang, Indonesia.	2012
2nd Place	**National paper writing contest** at University of Jakarta. We built a tool to optimize industry's air pollution filtration using NaOH.	2011
1st Place	**National Science Olympiad (Physics) –** Trenggalek District Level	2011

ACHIEVEMENTS

Internship	Accepted to join the **HDE Global Internship Program in Japan**. HDE, Inc. is a leading cloud-based security provider in Japan. Their service HDE One owns over 74% of market share in Microsoft Office 365/Google Apps targeted security service area in Japan.	2017
Scholarship	**Granted scholarships for monthly expenses** from the following organizations: KSE (Karya Salemba Empat), SDF (Syamsi Dhuha Foundation), and Kemenristekdikti.	2014
Scholarship	**Granted a full scholarship for my tuition fees** during my study in Institut Teknologi Bandung. The details can be looked at the official website: www.itbuntuksemua.com	2013
Training	**Dunamis Foundation**, 7 Habits of Highly Effective College Student.	2012

SOFTWARE ENGINEERING PROJECTS (> 60 Repositories at **https://github.com/daniarherikurniawan**)

Research on **Hadoop**	Joint-research between Surya University-ITB-UChicago.	2017
Sci Learn	E-Learning framework developed using **NodeJS** and **MongoDB**.	2016
File System Viewer	RPC experiments using **Apache Thrift** as a code generator for distributed system environment	2016
Disaster Management System	Designing and implementing **Spatio-Temporal and NoSQL DB**	2016
Aileron Mail	Secure android application for messaging, by implementing **Elliptical Curve Encryption** algorithm	2016
Research on **Spark**	Joint-research between Surya University-ITB-UChicago	2016
Research on **Voldemort** and **BDB**	Joint-research between Surya University-ITB-UChicago	2015
Research on **Couchbase** and **Hadoop**	Joint-research between Surya University-ITB-UChicago	2015
Quinna Online Store	WebApp for online shop developed using **Laravel Framework**	2015
Cari Kos	WebApp for searching rented room developed using Laravel Framework	2015

SKILLS

Software Engineering	• Excellent in some **IDEs**, including **Eclipse, NetBeans, CodeBlock, Unity, Arduino, Unity 3D, and Visual Studio**. • Excellent in some **programming languages**, including **JScript, CSS, C, C#, Scala, Java, PHP, CUDA, C++, JavaScript, SQL, Python, and HTML.**
	• Experienced in some database technology, including **Dynamo DB, Couchbase, Voldemort, Amazon Redshift, Hadoop, MapReduce, HBase, Spark, MongoDB, PostgreSQL, MySQL, Cassandra, Riak DB, and Berkeley DB**.
	• Experienced in using such technology like **RabbitMQ, Apache Thrift, Jenkins, NginX, npm, and XAMPP**.
Language	Excellent both in written and oral English with TOEFL IBT score at **94 out of 120**.

REFERENCES

Available upon request.

I declare the details stated to be true and complete.
(CV updated on October 1, 2017)