# DongInn Kim

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## Education

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|---|---|
| **Indiana University** | Bloomington, IN |
| Ph.D., of Science-Computer Science | Dec 2021 |
| Minor in Security | |
| Master., of Science-Computer Science | Dec 2011 |
| Bachelor., of Science-Computer Science | May 2004 |
| Minor in Mathematics | |
| Computer Science Honors Certificate | |
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| **Yonsei University** | Seoul, Korea |
| Bachelor., of Science-Material Engineering | Feb 1995 |

## Skills

**Programming Languages:**
Java, Perl, C#, C++, C, shell scripting, Python, Scheme, Assembly, Ocaml, Heskel, Ruby, Verilog

**Operating Systems:**
Linux, MAC OS X, Windows, UNIX, MS-DOS

**Web Programming:**
JDBC, JSP, Java Servlets/Applet, CGI, HTML, XML, JavaScript, PHP, ASP, .NET, Jekyll, Mojolicious, jQuery, AJAX, Node.js

**Database:**
MySQL, PostgreSQL, Sqlite, ORACLE, MS-SQL.

**Tools:**
Matlab, R, Mathematica, OpenGL, Latex, Subversion, Git, Radare2, Unicorn, Capstone, Keystone, Angr, GDB+PEDA, Vivado, Ghidra, IDA

## Projects

OSCAR (Open Source Cluster Application Resources), CIFTS (Coordinated infrastructure for Fault Tolerance Systems), LAM/MPI (Message Passing Interface), Open MPI, OAH Conference Management System (JDBC), Used Book Exchanging System – Website using JDBC (JSP, Java Servlet, Java Scripts, and MySQL), Search Engine (Java), Address Book (C++), Packman game (Scheme), Member Management System (C-Lang), trac, hypermail, XML-RPC, bcfg2, nagios, chef, TEI XML Editor, Cyber Force Competition

## Awards

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| **HackIN Reverse Engineering Hackathon** | Indianapolis, IN |
| First place | Nov 8 - Nov 10, 2019 |
| **Cyberfire CTF Competition** | Online |
| Second place | Jan 26 - Jan 28, 2018 |
| **Argonne National Lab Cyber Force Competition** | Lemont, IL |
| Technical Lead | 11/2017, 11/2018, 11/2019 |

## Experiences

**Core member/developer** — Bloomington, IN
IU CTF (Indiana University Capture The Flag) — May 2017 - Present
Teach the graduate class, Cyber Defense Competition — Spring 2018
Participate in developing an intelligent solution to analyze binary codes.

**System Administrator/Programmer** — Bloomington, IN
CREST (Center for Research in Extreme Scale Technologies) — Oct 2011 - Mar 2017
System Administrations for all the CREST computing resources:
21 server machines and 71 Apple/Linux/Windows workstations.
Maintain the CREST clustering computers (thumb cluster).

**System Analyst/Programmer** — Bloomington, IN
OSL (Open Systems Lab) — June 2005 - Oct 2011
System Administrations for all the OSL computing resources:
10 server machines and 23 Apple (G5) workstations.

**Developer** — Bloomington, IN
CIFTS (Coordinated infrastructure for Fault Tolerance Systems) — Aug 2010 - Feb 2012
Developed the Fault Tolerance Backplane Testing Tool (FTT)
based on MPI Testing Tool (MTT) and FTB-enabled syslog application.

**Core member/developer** — Bloomington, IN
OSCAR (Open Source Cluster Application Resources) — Jun 2004 - Present
Facilitate development and release of the new version of OSCAR.
Responsible for taking care of all the OSCAR systems (web sites,
subversion repositories, wiki, trac, and virtualization server),
OSCAR Database API (ODA), and supporting three OSCAR
packages (mta-config, switcher, and Open MPI).
Set up OSCAR on Play Station III (PS3) to utilize the full performance of cell core chips on PS3.

**Webmaster** — Bloomington, IN
ISI (International Student, Inc.) — Mar 2003 - Dec 2003
(http://www.indiana.edu/ isi)
Created and continue to manage the website using HTML,
JavaScript, and PHP.

**Web programmer** — Bloomington, IN
OAH Conference Management System — Feb 2003 - May 2004
(http://www.oah.org:8080/dbproject)
Created website to service the web-based conference management system. Used JDBC, JSP, Java servlet, and applet.Created
and continue to manage the website using HTML, JavaScript, and
PHP.

**Web Planning & Strategic Planner** — Seoul, Korea
KTLink — Oct 1999 - Sep 2000
Set up web services for a company that provides knowledge and
technology services to engineers.

**Assistant Manager** — Busan, Korea
SAMSUNG Electro-Mechanics Co. — Mar 1995 - Apr 1999
Participated in developing and adjusting SAP/R3 in the Factory
Control System of Samsung Electro-Mechanics Co. Set up Oracle
database for Die (Press, Casting, and Molding).

## Publications

### Refereed Conference Papers

1. Andalibi, V., J. Dev, D. Kim, E. Lear, and J. Camp. Making Access Control Easy in IoT. In: *IFIP International Symposium on Human Aspects of Information Security & Assurance*. June 2021.

2. Andalibi, V., E. Lear, D. Kim, and J. Camp. On the Analysis of MUD-Files' Interactions, Conflicts, and Configuration Requirements Before Deployment. In: *5th EAI International Conference on Safety and Security in Internet of Things*, *SaSeIoT*. Springer, May 2021.

3. Gopavaram, S., J. Dev, M. Grobler, D. Kim, S. Das, and L. J. Camp. Cross-National Study on Phishing Resilience. In: *Proceedings of the Workshop on Usable Security and Privacy (USEC)*. May 2021.

4. Kim, D., V. Andalibi, and L. J. Camp. Protecting IoT Devices through Localized Detection of BGP Hijacks for Individual Things. In: *SafeThings 2021*. Oakland: IEEE Workshop on the Internet of Safe Things, May 2021.

5. Kim, D., V. Andalibi, and L. J. Camp. Fingerprinting Edge and Cloud Services in IoT. In: *Systematic Approaches to Digital Forensic Engineering*. City University of New York (CUNY), New York City: IEEE Computer Society, May 2020.

6. Andalibi, V., D. Kim, and L. J. Camp. Throwing MUD into the FOG: Defending IoT and Fog by expanding MUD to Fog network. In: *2nd USENIX Workshop on Hot Topics in Edge Computing (HotEdge 19)*. Renton, WA: USENIX Association, July 2019.

7. Kim, D., J. M. Squyres, and A. Lumsdaine. The Introduction of the OSCAR Database API (ODA). In: *Proceedings of the 20th International Symposium on High-Performance Computing in an Advanced Collaborative Environment (HPCS'06)*. Session track: 4th Annual OSCAR Symposium (OSCAR'06). IEEE Computer Society, May 2006, pp.39.

8. Kim, D., J. M. Squyres, and A. Lumsdaine. Revamping the OSCAR database: A Flexible Approach to Cluster Configuration Data Management. In: *19th International Symposium on High Performance Computing Systems and Applications*. Ed. by I. Kotsireas and D. Stacey. Guelph, Ontario, Canada: IEEE Computer Society, May 2005, pp.326–332.

### Conference Posters

1. Das, S., D. Kim, T. Kelley, and L. J. Camp. *Grifting in the Digital Age*, *Analyzing Risk Communication Tools*. Midwest Security Workshop 2018, Washington DC. Apr. 2018.

### Presentations

1. Kim, D. and L. J. Camp. *Block-Pi: Defending against Man In The Middle (MITM) Attacks at the Edge*. Society for Risk Analysis, SRA 2019, Buffalo NY. June 2019.

2. Das, S., D. Kim, T. Kelley, and L. J. Camp. *Grifting in the Digital Age*, *Analyzing Risk Communication Tools*. eCrime APWG 2018, Sandiego CA. May 2018.

3. Kim, D. *OSCAR 5.1 on PlayStation 3*. Presentation at Super Computing Conference (SC 2007), Reno, Nevada. Oct. 2007.