

# Shahryar Baki

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## Employment Experiences

- **Software Engineer Intern at Google**, Sunnyvale, CA Summer 2018-present  
Implementing Remote Procedure Call Bot using Natural Language Generation (by employing Recurrent Neural Networks)
- **Software Engineer Intern at Google**, Mountain View, CA Summer 2017  
Implemented a high performance and persistent message queuing server using Spanner database (C++)  
Implemented a batch processing tool for reviewing Google AdWords (Java)
- **Software Engineering Manager at FANAP, ICT Subsidiary of Pasargad Financial Group**, Tehran, Iran 2013-2015  
Designed and developed embedded applications for various types of POS terminals (C)  
Managed development team, implemented and tracked development timelines, and negotiated feature sets with the development leads and end users.
- **Software Engineer at Sharif University CERT**, Tehran, Iran 2011-2013  
Implemented a botnet detection system by clustering network traffic (Java)  
Implemented a DNS sinkhole system (Java)  
Organized second and third Capture The Flag (CTF) competition
- **Software Engineer at Iran National Search Engine**, Tehran, Iran 2010—2011  
Customized Apache Lucene for Persian language and implemented Map/Reduce based indexer  
Worked with Hadoop cluster, HDFS and Hbase

## Education

- **Ph.D. in Computer Science** August 2015—expected August 2019  
University of Houston, TX, GPA: 3.85/4  
Natural Language Generation, Usable Security, Phishing
- **M.Sc. in Computer Engineering** 2011—2013  
Sharif University of Technology, Iran, GPA: 3.69/4  
**Thesis:** Distributed Denial of Service Attack Mitigation
- **B.Sc. in Computer Engineering** 2007—2011  
University of Tehran, Iran, GPA: 3.19/4

## Technical Skills

- **Programming languages:** C/C++, Java, Python, R, C#, HTML, lua
- **Platforms:** Linux, Windows, Embedded Linux
- **Other technologies:** Spanner, MapReduce, Apache Hadoop, Git, SVN, Redmine, iptables, TCPdump, Wireshark, Snort, MATLAB, MYSQL, Hbase, Wordnet
- **Libraries:** Keras, Scikit-learn, Weka, Gensim, Jnetpcap

## Technical Projects

- **ICE** 2016  
An open-source and academic Idiom and Collocation Extractor (available in ICE Github).

## Publications

- **Shahryar Baki**, Rakesh Verma, Arjun Mukherjee and Omprakash Gnawali. "Scaling and Effectiveness of Email Masquerade Attacks: Exploiting Natural Language Generation." In Proceedings of the 12th ACM on Asia Conference on Computer and Communications Security (ASIACCS). 2017.

- Luis, Moraes, **Shahryar Baki**, Rakesh Verma, and Daniel Lee. “Identifying reference spans: topic modeling and word embeddings help IR.” International Journal on Digital Libraries (2017)
- Luis, Moraes, **Shahryar Baki**, Rakesh Verma, and Daniel Lee. “University of Houston at CL-SciSumm 2016: SVMs with tree kernels and Sentence Similarity.” Proceedings of the Joint Workshop on Bibliometric-enhanced Information Retrieval and Natural Language Processing for Digital Libraries (2016)
- Rakesh Verma, Vasanthi Vuppuluri, An Nguyen, Arjun Mukherjee, Ghita Mammar, **Shahryar Baki** and Reed Armstrong . ”Mining the Web for Collocations: IR Models of Term Associations.” International Conference on Intelligent Text Processing and Computational Linguistics, 2016. (**Best Paper** Award - First Place)

#### Fellowships, Awards, and Honors

- **Department of Computer Science, University of Houston** 2017  
Best Junior PhD Student
- **37th IEEE Symposium on Security and Privacy** 2016  
Travel Grant
- **Grace Hopper Conference** 2016  
Travel Grant