

Seunghyun Lee

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| CONTACT INFORMATION | Hyundai APT 424-702, Seohyundong, Bundanggu Sungnamsi, Kyunggi Province, South Korea 463-777 | mobile: +82-10-2666-2085 e-mail: sl169@duke.edu |
| REARCH INTERESTS | Data-Intensive Computing, Big Data Analytics, Distributed Systems, Machine Learning | |
| EDUCATION | Duke University , Durham, NC <i>Bachelor of Science in Computer Science, Minor in Mathematics</i> · Cumulative GPA: 3.75/4.0, Major GPA: 3.93/4.0 | August 2009 – present |
| | St.Anne's Belfield School , Charlottesville, VA <i>High School Degree</i> · Graduated with Cum Laude, Unweighted GPA: 3.9/4.0 | August 2005 – May 2009 |
| RESEARCH EXPERIENCE | Connected Components on MapReduce <i>Advisor: Kamesh Munagala (Duke University)</i> · Implemented connected components algorithms such as Hash-Min, Hash-To-Min, and Hash-To-All and conducted a detailed analysis. · Wrote python scripts that converts the data into visualizations of the algorithm. | May 2014 – July 2014 |
| | Robus <i>Advisor: Shivnath Babu (Duke University)</i> · Built a multi-tenancy workload generator that simulates the real-world industry workloads. · Implemented a monitoring framework that collects and calculates performance metrics such as execution time, fairness index, throughput, and cache utilization. | January 2014 – May 2014 |
| | BigFrame <i>Advisor: Shivnath Babu (Duke University)</i> · Implemented Twitter sentiment analysis and Twitter rank algorithm on different systems including Spark, Bagel, Hadoop and Giraph. · Deployed and managed large clusters up to 100 nodes on Amazon EC2 cloud service and conducted the performance tuning on Hadoop, Hive, and Spark. · Conducted performance experiments in various settings such as scale-up, speed-up and scale-out tests. | August 2013 – January 2014 |
| WORK EXPERIENCE | Frograms , Seoul, Korea <i>Software Engineer</i> · Worked at a startup company that provides the service of movie recommendation. · Designed and Implemented a quiz generating tool that is widely used in the business team. · Built an analytics tool that collects and visualizes the data on the effect of advertisement. | September 2014 – December 2014 |
| | SAP Labs , Seoul, Korea <i>Software Engineer Intern</i> · Conducted rigorous performance tests on Hadoop, Spark, and SAP HANA using TPC-H. · Implemented python scripts for automating performance tests. | June 2013 – August 2013 |

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| TEACHING EXPERIENCE | Duke University , Durham, NC | January 2013 – May 2013 |
| | <i>Undergraduate Teaching Assistant, Department of Computer Science</i> <ul style="list-style-type: none"> · Teaching Assistant for Data Structures and Algorithms class, Instructor : Tabitha Peck. · Conducted weekly office hours and graded programming assignments. | |
| COURSE PROJECTS | OogaSalad | |
| | <i>Duke University, CS308 - Software Design and Implementation</i> <ul style="list-style-type: none"> · Wrote a turn-based strategy game engine in Java. Mostly worked on implementing the framework for serializing and deserializing game data in xml file format. | |
| | SLogo | |
| | <i>Duke University, CS308 - Software Design and Implementation</i> <ul style="list-style-type: none"> · Designed and implemented an interpreter of Logo Language in Java. Mostly worked on the back-end part that parses and build the execution tree of the user input commands. | |
| | Devil Shell | |
| LEADERSHIP EXPERIENCE | <i>Duke University, CS310 - Operating Systems</i> <ul style="list-style-type: none"> · Built a functional shell that supports spawning processes, job control, input/output redirection, error handling, and pipelines. | |
| | Defiler | |
| | <i>Duke University, CS310 - Operating Systems</i> <ul style="list-style-type: none"> · Implemented a multi-threaded file system in Java which is capable of storing and managing concurrent access to the multiple files. | |
| | Defense Security Command , Kangwon Province, Korea | August 2010 – May 2012 |
| | <i>Sergeant, Korean Army</i> <ul style="list-style-type: none"> · Served as a squad leader for 6 months and supervised 15 soldiers. · Handled classified documents (Confidential – level 3, Secret – level 2). | |
| | Unrated | September 2009 – present |
| | <i>Guitarist, Founding Member</i> <ul style="list-style-type: none"> · Organized weekly practice sessions and performances for various venues. | |
| HONORS AND AWARDS | <ul style="list-style-type: none"> · Dean's List for Spring 2010, Fall 2012, Fall 2013, Spring 2014 (Duke University) · Mathematics Award (St.Anne's Belfield School, 2009) · The Hovey S. Dabney Scholarship (St.Anne's Belfield School, 2006) | |
| COURSES TAKEN | <ul style="list-style-type: none"> · Data Intensive Computing(Spring 2015), Network Architecture(Spring 2015), Operating Systems, Software Design & Implementation, Data Structures, Design and Analysis of Algorithms, Computer Architecture, Computational Genomics · Coursera: Introduction to Databases (by Prof. Jennifer Wisdom, Stanford), Introduction to Data Science (by Prof. Bill Howe, University of Washington) | |
| SKILLS | <ul style="list-style-type: none"> · Programming Languages: Java, C, Python, Ruby, HTML/CSS/JS, SQL, \LaTeX · Software Tools: Hadoop/Hive, Spark, Ruby on Rails, Git · Operating Systems: Linux, Mac OS, Windows · Languages: Fluent in Korean and English; Basic Mandarin Chinese | |