

Sung Yoon (James) Whang
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EDUCATION

Northwestern University **Evanston, IL**
Robert R. McCormick School of Engineering and Applied Sciences 2013 – 2017 (Expected)
Concurrent 4-year degree in B.S. and M.S. in Computer Science (Concentration: Computer systems and security)
Cumulative GPA: 3.78/4.00
Relevant Coursework: Data Structures, Intro to Computer Systems, Operating Systems, Computer Networks, Programming Languages, Compiler Construction, Distributed Systems, Machine Learning, Resource Virtualization

WORK EXPERIENCE

Jienem (www.jienem.com) **Seoul, South Korea**
Software Engineer 2015 – Current

- Full stack web development at a early stage Korean startup Jienem (Java Spring backend with jQuery, Sass frontend)
- Led a major codebase refactoring and restructure, as well as server migration to AWS cloud

Shmoop University Inc. (www.shmoop.com) **Mountain View, CA**
Software Engineering Intern 2014 – 2015

- Full-stack web development at one of top 400 sites in the U.S., mainly using PHP and JavaScript
- Designed and implemented numerous projects into production, including the Shmoop book reader
- Won company hackathon with Shmoop Translator, which is now deployed onto production
- Developed an automated QA tool for Elasticsearch module on Shmoop contents in Python

Northwestern University **Evanston, IL**
Undergraduate Teaching Assistant 2014 - Current

- Assisted Prof. Nikos Hardavellas and Prof. Peter Dinda with EECS 213 – Introduction to Computer Systems
- Taught 2 hour weekly recitations, graded homework, lab assignments, and exams, and held weekly office hours
- Topics include x86 assembly, virtual memory, cache, exceptional control flow, parallel programming

Northwestern University **Evanston, IL**
Research Assistant 2014 – Current

- Working on the V3VEE project, led by Professor Peter Dinda
- Contributions to the Palacios VMM, an open source, OS-embeddable virtual machine monitor framework

PROJECT / RESEARCH EXPERIENCE

Boot Time Minimization with BIOS Replacement and Virtualization Summer 2015

- Minimized boot time of x86 architecture servers by replacing BIOS on flash ROM with Coreboot and the Nautilus kernel, with the Palacios VMM embedded to it

TCCLK (The Tiny Kernel in the Linux Kernel) Winter 2015 ~ Current

- One of main developers of TCCLK, a C compiler ported as a Linux kernel module, capable of executing kernel privilege code in the user level, including symbols across other running kernel modules

The Nobel Prize Predictor Spring 2015

- Used machine learning approach to predict the winner of next Nobel Prize in Chemistry, reaching an ~80% accuracy, using functional trees and Bayes nets

The Materials Genome Project Spring 2014 – Current
Client: National Institute of Standards and Technology, QuesTek Innovations LLC

- Used machine learning to predict the fatigue strength of steel based on its chemical composition and processing data, creating a model reaching an r-squared value of 0.98

AWARDS / HONORS

Murphy Scholar – class of 2017, *Northwestern University* Fall 2014
Dean's List with Honors – all quarters since 2013, *Northwestern University* 2013 – 2015
Summer Undergraduate Research Grant, *Northwestern University* Summer 2015
Valedictorian, *Bali International School* Spring 2013
Full Academic Scholarship, *Bali International School* 2010 – 2013
High Distinction, Australian Mathematics Competition 2008 – 2012
Individual Round Award, South East Asian Mathematics Competition 2008

SKILLS

Programming Languages
Proficient: C, PHP, Python, JavaScript
Familiar: C++, C#, Java, Ruby, Racket, Swift, MySQL
Platforms Familiar with the UNIX programming environment, iOS, web development under LAMP/MEAN stack
Tools Experience with version control systems (SVN, Git), XCode, Visual Studio
