

Soon Jae Kwon

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<http://soonjae.info>

Education

- **University of Pennsylvania, School of Engineering and Applied Science (SEAS)** **Philadelphia, PA**
Bachelor of Science in Engineering (BSE) in Bioengineering *Fall 2009 - Spring 2013*
 - Coursework: Soft Materials, Medical Devices, Medical Imaging, Nanotechnology, Physical Chemistry, Molecular Biology, Clinical Applications, Engineering Finance, Corrosion Mechanics, Computer Science
- **The International School of Kuala Lumpur (ISKL)** **Kuala Lumpur, Malaysia**
International Baccalaureate (IB) Diploma Program *Fall 2005 - Spring 2009*

Experience

- **Laboratory for Nanostructured Biointerfaces** **KAIST University, Korea**
Fabrication Intern *Summer 2010*
 - Participated in in-vitro synthesis and testing of polymer-dsRNA complexes
 - Examined the possibility of harnessing RNA silencing as a means to combat cancer
- **Department of Neurosurgery** **Pennsylvania Hospital, PA**
Preceptee, Optimization/Systems Engineer *Spring Semester 2011*
 - Shadowed Gordon H. Baltuch, MD, PhD in multiple Deep Brain Stimulation (DBS) surgeries
 - Identified inefficiencies and proposed methods to aid or completely automate certain aspects of surgery
 - Programmed MATLAB algorithm to parse EEG signals to indicate the correct placement of DBS probe in the thalamic region
- **Molecular & Computational Genomics Laboratory** **Samsung & SKK University, Korea**
Bioinformatics Intern *Summer 2012*
 - Samsung Advanced Institute for Health Sciences and Technology (SAIHST) Sponsored
 - Participated in DNA sequencing and using computing power for genome-wide sequence mapping
 - Programmed BioPython scripts to locate specific instances of RNA segments with known functions within the human and mouse genomes for the purpose of augmented siRNA design for gene therapy
- **Tung Kay Fun Laboratory** **University of Pennsylvania, PA**
Product Designer, Bioengineer *Fall 2012 - Spring 2013*
 - Designed and programmed a device to assist children with Cerebral Palsy (CP) to operate a digital camera
 - Demonstrated said device at the Home of the Merciful Saviour (HMS) School for children with CP
 - Developed an automated pill dispensing system for the elderly using rotating disks and microchips
- **Various Employers** **Korea**
Freelance Translator, English Tutor, Essay and Application Advisor *Summer 2010 - Present*
 - Provided Korean to English translating services to various clients ranging from individuals to KBS World
 - Tutored English grammar to high school students for standardised tests (SAT, TOEFL)
 - Advised college applicants on the contents of their applications and related essays

Technical Skills

Operating System: Extensive use of both Windows and Macintosh OS

Word Processing: Microsoft Office Suite, LaTeX

Programming: Proficient in MATLAB, Python, Ruby on Rails, Javascript, HTML/CSS, Arduino

Languages: Fluent in English and Korean, Proficient in Japanese, and Conversational in Spanish

Lab Skills: Cell staining, Transformation, Gel electrophoresis, PCR, Spectrophotometry, Titration

Misc: Local instance installation of Penn State University's Galaxy Project and UCSD Genome Browser