

Kevin (Min Geol) Joo

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Education

Johns Hopkins University

B.S. in Biomedical Engineering, Computer Science

Graduation: 2017

- GPA: 3.47 (includes freshman fall)
- Albert and Elaine Slechter Scholarship for Engineering Undergraduates Recipient
- Whiting School of Engineering Dean's List: Fall 2013, Spring 2014, Spring 2015

Relevant Coursework

Introduction to Genomic Research, Data Structures, Intermediate Programming in C/C++, Automata & Computation Theory, Intro to Programming in Java, Intro to Programming with Python, Discrete Mathematics, Linear Algebra, Systems & Controls, Models & Simulation, Systems Bioengineering, Systems Bioengineering Lab, Molecules & Cells

Technical Experience

Thumbprint.us

Baltimore, MD

Co-Founder/ Head of Development

December 2015 – Present

- Designed the UI/UX and developed the front end of the application using InVision, Ionic, and AngularJS
- Working on the back end of the application to process posts, messages, and polling data from local government
- Reached out to student organizations and the Center for Social Concern and brought them on as beta testers
- Accepted in the Q1 2016 cohort of Wasabi Ventures Academy

Ion Torrent Technologies, under Thermo Fisher Scientific

Guilford, CT

R&D / Systems Engineering Intern

June 2015 – August 2015

- Worked on developing an innovative and highly efficient form of digital PCR with the Ion Proton system
- Used MATLAB scripts for signal processing and data analysis, and double checked with a flow cytometer
- Designed and implemented techniques to reduce signal cross-talk and flowing between reaction chambers

Hoke Neuroscience Lab, Johns Hopkins School of Medicine

Baltimore, MD

Student Researcher

May 2014 – Present

- Performed in vitro and in vivo experiments with potential drugs to test for neuroprotection
- Conducted nerve conduction/electromyography, heat sensitivity, and mechanical allodynia tests on mice
- Analyzed behavioral, electrical, and cell/tissue data with ImageJ, OpenLab, MATLAB, Excel, and GraphPad Prism

Thakor Neuroengineering Lab, Johns Hopkins School of Medicine

Baltimore, MD

Student Researcher

June 2011 – Present

- Designed and microfabricated silicon wafers with AutoCAD and SU-8 photolithography
- Used soft lithography techniques and wafers to create novel microfluidic devices from PDMS
- Designed thin films and treatments to optimize the growing of nanowire arrays on the film surface
 - Utilized a profilometer for surface profile measurements and statistical analyses of the film layers
- Performed gold depositions on nanowires for interfacing with and optogenetically stimulating nerves

Skills and Awards

- **Software:** C/C++, Java, JavaScript, HTML/CSS, Python, Ionic/AngularJS, Node.js, MATLAB, LabView, SQL
- **Language:** Fluent in Korean, working proficiency in Spanish
- **Awards:** BigApps NYC 2015 Semi-Finalist (pitched, built, and submitted an app, Clutch, for Affordable Housing)
Mindsumo Challenge Winner: Won an anonymous company's challenge for detecting fluid levels

Leadership Experience

Hopkins for the Homeless

Baltimore, MD

President

August 2015 – Present

- Grew club from 15 active members to over 70, and grew partnerships from 1 to 6 organizations
- Established committees for research, healthcare, direct alleviation, awareness, and technology/data solutions
- Held an awareness week, healthcare volunteering, and a hygiene kit & blanket making event for donation

Hopkins Association for Stroke Awareness

Baltimore, MD

Treasurer

May 2015 – Present

- Managed the budget to fund club activities, and managed the club as part of the executive board
- Pitched, planned, and funded two campus events by submitting a Student Life Programming Grant proposal

Publications

Cetinkaya-Fisgin A., **Joo M.G.**, Ping X., Thakor N., Ozturk C., Hoke A., Yang I.H. Identification of new therapeutic targets for paclitaxel induced peripheral neuropathies. *PloS One*, PONE-D-16-00544. Submitted: 2016 Jan. 6.

Zhang P., Abdelmohsen K., Liu Y., Tominaga-Yamanaka K., Yoon J.H., Yang I.H., **Joo M.G.**, Zhang Y., Becker K., Gorospe M. Novel RNA- and FMRP-binding protein TRF2-S regulates axonal mRNA transport and presynaptic plasticity. *Nature Communications*, DOI: 10.1038/ncomms9888.

Accepted: 2015 Oct. 6.

Sinha S., Fu Y.Y., Yang I.H., Kulkarni S., Lee A., **Joo M.G.**, Thakor N., Goggins M., Pasricha P.J. Tu1903 Pancreatic Cancer and Sensory Nerves: Characterization of the Role of TRPV1 Leading to Axonal and Cancer Growth Using a Novel Microfluidic Dual Chamber System. *Gastroenterology*, Volume 146, Issue 5, S-868, 2014 May.

Supplementary Material

BigApps NYC 2015 Semifinalists

<http://bigapps.nyc/p/announcing-the-bigapps-2015-semifinalists/>

MindSumo Challenge

<https://www.mindsumo.com/contests/make-it-easy-to-judge-remaining-liquid-in-an-opaque-container>

Thumbprint.us

<http://thumbprint.us/videos/index.html>

All material is available upon request.