Kaylee Mann

www.kayleemann.com

Research

Research Assistant in Maharbiz Group at UC Berkeley — Feb. 2012-Present

Designed energy harvesting board developed for fuel cells that run on glucose and are implanted into beetles.

Designed and tested head mounted visual stimulation device for insects designed to enable remotely controlled flight.

Developed firmware and custom data logging software for an impedance mapping array designed to monitor wound healing.

Publications & Proceedings

Mann, K.; Massey, T.L.; Guha, S.; van Kleef, J.P.; Maharbiz, M.M., **"A Wearable Wireless Platform for Visually Stimulating Small Flying Insects"** Engineering in Medicine and Biology Society (EMBC), 2014 36th Annual International Conference (Podium Presentation)

Monica Lin, Amy Liao, Elisabeth Leeflang, Yasser Khan, Felippe Pavinatto, Kaylee Mann, Agne Naujokas, David Young, Shuvo Roy, Michael Harrison, Ana Claudia Arias, Vivek Subramanian, Michel M. Maharbiz, **"Impedance Sensing Device Enables Early Detection of Pressure Ulcers in Vivo"** 17 Mar. 2015. Nature Communications 6, Article number: 6575

Yasser Khan, Felippe J. Pavinatto, Monica Lin, Amy Liao, Sarah L. Swisher, Kaylee Mann, Vivek Subramanian, Michel M. Maharbiz, Ana C. Arias. **"Inkjet-Printed Flexible Gold Electrode Arrays for Bioelectronic Interfaces"** 10 Dec. 2015. Advanced Functional Materials. (Cover Article)

Amy Liao, Monica Lin, Lauren Ritz, Sarah Swisher, David Ni, Kaylee Mann, Shuvo Roy, Michael Harrison, Ana Arias, Vivek Subramanian, David Young, Michel Maharbiz. **"Impedance Sensing Device for Monitoring Ulcer Healing in Human Patients"** Engineering in Medicine and Biology Society (EMBC), 2015 37th Annual International Conference

Contact Information

+1 (760) 715-0057
kayleemann7@gmail.com

Education

**University of California Berkeley
B.S. Electrical Engineering and Computer Science (EECS)**; May 2015; 3.7 GPA

Work Experience

Intern, Northrop Grumman Global Hawk Program — May-Aug. 2011

The Global Hawk is a combat-proven high altitude military reconnaissance UAV.

Developed applications for database interface and software management using VBA and MS ACCESS
Developed web-based tool from scratch for software peer review.

Software Engineer, Google Inc. — Aug. 2015-present

Develop production code primarily in C++ and Java for the Google Search Engine.

Participate in biweekly rotation for testing new binary version and rolling it out globally to production infrastructure.

Architected new features related to query understanding.

Helped develop Query Understanding Service (a backend to the Search Engine) streaming RPC API.

Added AutoTranslation Support to Query Understanding

Currently using technologies including:
C/C++, Java, Python, UNIX, Protocol Buffers (Serialization), gRPC, Bazel, GUnit unit testing, ASAN/MSAN integration testing, gdb, Git, Perforce, Code Reviews

Skills

Software Development:
C/C++, Java, Python, Scheme, SQL, Git, UNIX

Web Development:
Django, HTML, CSS, LaTeX, Jekyll

Hardware:
PCB design & fabrication with Eagle and SMD

Embedded Development:
Bare metal C programming, ATMEL and TI MSP430 microcontrollers

Human Languages:
English (native) Spanish (proficient) Japanese (conversational)

Artistic & Creative:
Blender 3D Animation, Inkscape Vector Graphics, Gimp, Swing Dance, Photography

Honors

HKN EECS Honor Society Inductee

SURF Rose Hills Research Fellowship

QUEST Qualcomm Summer Research Fellowship

UC Berkeley Regents' and Chancellor's Scholarship

Teaching

Undergraduate Student Instructor (uGSI) for CS61A: The Structure and Interpretation of Computer Programs — Aug. 2012-Dec. 2014

Taught discussion and lab sections for UC Berkeley's intro CS class.

Helped develop curriculum including exam questions and discussion worksheets.

uGSI for EE42/100 — Summer 2013

uGSI for EE20 — Spring 2015

Developed homework and exam exercises in collaboration with other GSIs.

Taught discussion and lab sections