George **Sun**

PhD, Biological Engineering

New Lab, 19 Morris Ave, Brooklyn, NY, 02141

(310)985-5901 | ge0rge.sun10@gmail.com | www.mrsunny.tech | mrsunny0 | george-lele-sun

Education

Ph.D. Biological Engineering — *Cambridge, MA*

Massachusetts Institute of Technology, GPA 4.90/5.00 — *Aug 2014 - June 2019*

B.S. Biomedical Engineering and **Electrical Engineering & Computer Science** — *Berkeley, CA*

University of California Berkeley, GPA 3.96/4.00 — *Aug 2010 - 2014*

Work Experience

Nextiles, Inc. — *Brooklyn, NY*

Founder & CTO — *June. 2019 - Present*

-
- Code in Python, R, and bash scripting

Design Lab *X* Puma — *Cambridge & Nuremberg*

Lead Embedded Engineer — *Jan. 2017 - Jan. 2018*

- Developed access control management systems for Cloud Foundation Services
- Tested cloud container services and created prototype for user interface

Communication Lab — *Cambridge, MA*

Communication Fellow & Instructor — *Jun. 2015 - May. 2019*

- Provided classes and instructions
- Tested cloud container services and created prototype for user interface

Research Experience

Biomolecular Materials Group, MIT — *Cambridge, MA*

Graduate Researcher — *Aug. 2014 - Apr. 2016*

- Develop machine learning and bioinformatics tools to analyze proteomic, genomic, and epigenetic data
- Code in Python, R, and bash scripting

Molecular Engineering Imaging and Control, Caltech — *Pasadena, CA*

Undergraduate Researcher — *March. 2014 - Aug. 2014*

- Developed access control management systems for Cloud Foundation Services
- Tested cloud container services and created prototype for user interface

Molecular Engineering Imaging and Control, Berkeley — *Berkeley, CA*

Undergraduate Researcher — *Jan. 2011 - Aug. 2014*

- Developed access control management systems for Cloud Foundation Services
- Tested cloud container services and created prototype for user interface

Publications

Academic Journals

Sun, George L., and Angela M. Belcher. "Engineering supramolecular forming proteins to chelate heavy metals for waste water remediation." (2020). *in submission*.

Sun, George L., Erin E. Reynolds, and Angela M. Belcher. "Using yeast to sustainably remediate and extract heavy metals from wastewaters." *Nature sustainability* (2020). *in review*.

Gilbert, C., Tang, T. C., Ott, W., Dorr, B. A., Shaw, W. M., **Sun, G. L.**, ... & Ellis, T. "Living materials with programmable functionalities grown from engineered microbial co-cultures." *bioRxiv*. (2019).

Sun, George L., Erin E. Reynolds, and Angela M. Belcher. "Designing yeast as plant-like hyperaccumulators for heavy metals." *Nature communications* 10.1 (2019): 1-12.

Shapiro, M. G., Ramirez, R. M., Sperling, L. J., **Sun, G.**, Sun, J., Pines, A., ... & Bajaj, V. S. (2014). "Genetically encoded reporters for hyperpolarized xenon magnetic resonance imaging." *Nature chemistry* 6.7 (2014): 629.

Web Publications

Sun, George L... "File Structure". *Mechanical Engineering Communication Lab, MIT*. (2019). `https://mitcommlab.mit.edu/meche/commkit/file-structure/`.

McLean, K., Peters J., Ramamoorthy, D., **Sun, G.**, Toth T., Triassi A., Prerna B. "Awesome BECL Resources". *Biological Engineering Communication Lab, MIT*. (2019). `https://github.com/MIT-BECL/awesome-becl-resources`.

Sun, G., Wang, D., Gerarld, K. "Air Guitar". *Instructables*. (2016). `https://www.instructables.com/id/Air-Guitar/`.

Patents

Sun, George L... "Devices for static and dynamic body measurements." US Patent 16/573,727. 20 November 2019. (approved, not yet public)

Sun, George L... "Methods of manufacturing devices for static and dynamic body measurements." US Patent 10,458,866. 29 October 2019.

Sun, George L... "Systems, methods, and devices for static and dynamic body measurements." US Patent 10,378,975. 13 August 2019.

Sun, George L., and Angela M. Belcher. "Engineered yeast as a method for bioremediation." U.S. Patent 15/887,305. 18 August 2018

Honors & Awards

2019-*Curr*	**Member**	New Lab Innovation Space	*New York, NY*
2019	**Member**	Delta V Accelerator	*New York, NY*
2019	**Recipient**	NSF I-Corps Program	*Philadelphia, PA*
2014-2019	**Recipient**	NSF Graduate Research Fellowship Program	*Cambridge, MA*
2016-2019	**Recipient**	Amar G. Bose Research Grant	*Cambridge, MA*
2018-2019	**Recipient**	CEHS Pilot Grant	*Cambridge, MA*

Skills

Machinery	Solder/Reflow, 2-3DoF CNC, Vinyl Cutters, Laser Cutters, 3D Printing, Molding/Casting, Screen Printing, Vacuum Forming
Digital Fabrication	Eagle PCB, Fusion CAD/CAM, Techpacker, Multimeter/Oscilloscope, TTL/UART/I^2C/ISP Communication
DevOps	Microsoft Suite, Airtable, Coda, Slack, Asana, Docsend, Git/hub/lab, GoDaddy, Webflow, Heroku, Mlab, AWS
Programming	Javascript (Node.js), Python (Matplotlib, Numpy, Scipy, Pandas, Notebooks), R (Tidyverse, Notebooks), GO, LaTeX
Back-end	Express, MongoDB, Websockets, BLE Stack, REST API
Front-end	D3.js, Three.js, Leaflet.js, Gulp, Yeoman, HTML5, Bootstrap, SASS