Lukas J. Vasadi

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Experience

Cellino Biotech Inc. | Cambridge MA — May 2021 – Present

Software Engineering Team Lead — Oct 2025 – Present

- Leading development of the flagship *Nebula* stem cell production system control software
- Instituted a bio user feature request pipeline to eliminate conflicting work streams
- Formalized hiring process and identified cost savings opportunities totaling over $70k

Senior Engineer — Jun 2023 – Oct 2025

- Architected the company *de facto* standard for high-level instrument control applications
- Developed an instrument controller to automate cell imaging and scanning experiments
- Wrote a desktop application to command instrument and view real-time data streams via TCP

Engineer — May 2021 – May 2023

- Designed a concept high-speed microscopy instrument that doubled sample throughput
- Conducted optical experiments to evaluate quantitative phase imaging for cell detection
- Developed a desktop application for experimenters to "annotate" images for laser cell removal

Abselion Ltd. | Cambridge UK — Feb 2019 – Apr 2021

Engineer

- Prototyped an instrument (now commercial device) that helped raise over £2m in seed funding
- Designed and fabricated biosensing transistors using MEMS manufacturing techniques
- Created PCBs and firmware to modulate/record electrode potentials in electrochemical cell
- Developed a low-cost consumable sensor package that saved over £600k in development cost

Education

Cambridge University | Cambridge UK

MPhil Engineering, Whitaker International Fellow — 2018
Thesis: On simulating respiration mechanics in 3D trachea tissue cultures

Stony Brook University | Stony Brook NY

BE Biomedical Engineering, Minor Writing & Rhetoric, *Magna Cum Laude* — 2016
Provost's Award for Academic Excellence, Richard W. Reeder Endowed Scholarship
Department teaching assistant for solid mechanics and research methods courses
Division I Athlete, Cross Country & Track, 2012-14
Resident Assistant, 2013-16

Skills

Programming	C/C++, Python, JavaScript, HTML/CSS, LaTeX
Frameworks / SDKs	Qt, SvelteKit, Stm32
Design	SolidWorks, Eagle, AutoCAD
Fabrication	Lithography, Thin-Film Deposition, Chemical Etching

Patents

M. Wagner, S. Avivo, et al., "Platforms and Systems for Automated Cell Culture" U.S. Patent No. 17/930,413, Mar 19, 2024.

A.M. Patil, P. Romele, et al., "System and Methods for Dipping Electrical Sensor for Measuring Properties of Molecules" US Patent Appl. No. 18/574,368, Jul 7, 2022.

Internships

Amgen Scholars Program, Columbia University	2016
Summer Apprenticeship Program, NASA Johnson Space Center	2015
Summer Undergraduate Research Program, NYU Hospital for Joint Diseases	2014

Select Awards

Whitaker International Fellowship, Whitaker Foundation	2017
Distinguished Athlete Award, United States Marine Corps	2012
Sportsmanship Award, New York State Public High School Athletic Association	2012

Select Conference Abstracts

L.J. Vasadi, R. Wang, et al., "Biosensor for rapid detection of influenza with high sensitivity," presented at the *Engineering in Medicine and Biology 41st Conference*, Berlin, 2019.

L.J. Vasadi, Y. Liu, et al., "Simulating respiration mechanics in three-dimensional airway tissue cultures," presented at the *European Society of Biomechanics 25th Congress*, Vienna, 2019.

Y. Yu, **L.J. Vasadi**, et al., "Microstructural and tissue-level mechanical changes in subchondral bone in osteoarthritis with/without type 2 diabetes," presented at the *Orthopedic Research Society Annual Meeting*, San Diego CA, 2017.

L.J. Vasadi, E.R. Specter, et al., "Recommended methods for monitoring skeletal health in astronauts to distinguish specific effects of prolonged spaceflight," presented at the *Aerospace Medical Association 87th Annual Scientific Meeting*, Atlantic City CA, 2016.