Nick Speal

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To Mr. Berger and the Desmos engineering team,

I'm a software engineer with a specialization in web development and a background in team leadership and robotics. I care deeply about writing software that distributes rather than concentrates opportunity and was thrilled to sense the same attitude when I met Cori and Denis at Jenny's Design Week talk last week. I'd love to join your team as a software engineer and help make sure that all students have access to the very best math education.

Rigorously trained in engineering fundamentals at McGill University, I earned a GPA of 3.9 and a reputation for perseverance when solving challenging problems. Building production software at 3D Robotics and fun projects on the side, I've most enjoyed the frontend work that is closest to the user. As one of four teammates building out a geospatial data visualization application in ReactJS, I took ownership of meeting end-to-end product requirements. Often this meant coming up with creative ways to manipulate 3D data or quickly learning new tools to integrate with existing customer workflows. My background in controls and robotics engineering has left me with a mindset for ensuring quality when developing mission-critical software systems for mass production.

One aspect of my resume that I hope will stand out is the leadership experience I gained in project management roles. After 4 years of focusing on team productivity and cross-functional integration, I've developed empathy and an understanding of the different ways people are motivated and work together. My references will tell you how this has led to team success over and over again.

Despite my enthusiasm for building robots, I've reoriented my focus towards education because I believe it's the best opportunity we have to use software to tackle social inequity. Historically marginalized groups are underrepresented in STEM fields and I hope that better access to quality math education can be an early intervention that helps correct this injustice.

I'm impressed with Desmos' commitment to enabling teachers to improve student outcomes, as opposed to just hollow metrics, and this is a mission I want to be a part of. Please email me to schedule a call to discuss further.

Thank you for your consideration,

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I'm a software engineer with a specialization in web development and a track record of success in robotics and team leadership. I'm committed to improving the access and quality of math education for all children and excited to build tools that help teachers help students learn more effectively. I'm also a US Citizen.

McGill University
Bachelor of Mechanical Engineering
Dean's Honour List
GPA: 3.9/4.0

Javascript, React, Redux, Sass, CSS Modules
Python, Django, AWS, Linux

Self-directed Post-Graduate Education   2018

- I've assembled my own curriculum of online courses, books, projects, and travel related to computer science and social justice

Software Engineer, 3D Robotics   2017

- Built a complex and evolving web application, enabling visualization & interaction with construction site topography collected by drone
- Owned frontend development and maintenance together with 2-3 other engineers, occasionally picking up backend and drone software projects as needed.
- Shipped an MVP early; achieved market leadership after one year of biweekly updates, measuring user feedback along the way with Amplitude and interviews
- Fun challenges included: PDF import and overlay on a map, real-time 3D Volume estimator and visualizer, Integration with nascent Autodesk APIs for team sync & file management.
- Worked remotely, allowing uninterrupted time for intense focus, while communicating effectively online.

Engineering Project Manager, 3D Robotics   2015-2016

- Responsible for systems integration and team coordination for Solo: the first mass-produced camera drone to be sold in major retail stores around the world
- Ensured product quality by establishing integration testing processes and investigating complex issues with interdisciplinary teams

Team Lead and Controls Engineer, McGill Robotics   2011-2014

- Led a team of 98 students to build robots for two international competitions

Summer Internships, McGill University   2011-2013

- Software development in Python and MATLAB in support of a variety of research objectives

Side Projects

- Find a library of (mostly web-) applications I've built at speal.ca/projects