

# Nick Speal

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August 17, 2018

To Ms. Wang and the Informed K12 engineering team,

I am a software engineer with a specialization in full stack web development, currently transitioning my career from robotics to education in an effort to apply myself towards the distribution rather than concentration of opportunity. Wary of participating in a wave of new ed-tech that is imposing its pedagogy on teachers, I'm drawn to Informed K12's mission of streamlining administration to give teachers space to do what they do best.

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 frontend work because it is closest to the user. As one of four teammates building out a geospatial data visualization application with 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.

My expertise is primarily in JavaScript and Python, but I look forward to learning Ruby in preparation for an Informed K12 interview. At 3D Robotics I learned Scala to better understand the systems adjacent to my domain, which earned me recognition from our principal engineer for asking the right questions and picking up new skills quickly.

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. Many of the processes for team collaboration and skill development that I established as leader of the McGill Robotics student design team continue to contribute towards their success today.

I'm impressed with Informed K12's commitment to listening to the hidden heroes of educational administration and I want to be a part of the team that streamlines their operational efficiency. 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 education for all children and excited to build systems that help schools operate 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

- Full-time MATLAB and Python development to support graduate research

## **Side Projects**

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