# Robert Lou


CONTACT INFORMATION

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## EDUCATION

**The Wharton School & Perelman School of Medicine, University of Pennsylvania** — Philadelphia, PA

***MD/MBA Candidate, Major in Healthcare Management*** — **2016-2021**

- VP of Ventures, Penn HealthX: Managed a $30,000 venture fund with the aim of supporting students developing innovative ideas in healthcare.
- Program Assistant, RSNA National Imaging Informatics Course: Coordinated with radiologists to organize and deploy content in a new MOOC which teaches medical imaging informatics fundamentals to residents across the country.
- Member of Wharton Tech Club, Wharton Healthcare Club, and Wharton Dance Studio
- GMAT: 770 (99%)

**Columbia University** — New York, NY

***BA in Computer Science and Mathematics, magna cum laude, Phi Beta Kappa*** — **2011-2015**

- Teaching Assistant, Multivariable Calculus
- Mentor, Columbia Mentoring Initiative: Mentored first-year students, emphasizing academic success and leadership development.
- Accordionist, Columbia University Klezmer Band
- Web Developer Intern, Meddik: Designed gamification system to incentivize user actions on www.meddik.com using the Ruby on Rails framework.

## EXPERIENCE

**Hospital of the University of Pennsylvania** — Philadelphia, PA

***Machine Learning Researcher*** — **2016-2019**

- Research interest is in building artificial intelligence technologies for clinical medicine
- Developed machine learning models to automatically detect radiology reports requiring follow-up imaging. Used natural language processing techniques for feature engineering. Work has been presented at national meetings and featured by radiology press.
- Lou R, Lalevic D, Chambers C, Zafar H, Cook TS. *Automated Detection of Radiology Reports that Require Follow-up Imaging Using Natural Language Processing Feature Engineering and Machine Learning Classification.* J Digit Imaging (2019).

**MathWorks** — Natick, MA

***Software Engineer*** — **2015-2016**

- Developed built-in functions for the Statistics and Machine Learning Toolbox for MATLAB. Contributed to all parts of the development cycle, including design, implementation, testing, and deployment. Parallelized frequently used back-end functions, which resulted in faster runtimes by 50% for the majority of users.
- Created educational videos for an NIH machine learning competition on how to create a variety of machine learning classifiers and evaluate the performance of each model using MATLAB. As a result, MATLAB was widely adopted by competitors and the top performing model was written in MATLAB.
- Mentored summer interns by defining summer projects and providing technical guidance.

## HONORS AND AWARDS

Wharton Healthcare Fellowship
Columbia Computer Science Department Award (2 per graduating class)
United States National Physics Olympiad Semifinalist
USA Mathematical Talent Search Bronze Medalist

## ADDITIONAL INFORMATION

Programming Languages: Java, C/C++, Python, Ruby, MATLAB, JavaScript
Projects: columbia.edu/~rl2595/projects.html
Interests: Playing piano and accordion (50,000+ YouTube views), cooking, rock climbing, video games, and photography.