

## Contact

[www.linkedin.com/in/rafiwitten](http://www.linkedin.com/in/rafiwitten)  
(LinkedIn)

## Top Skills

C++

Python

LaTeX

# Rafi Witten

Navigation Manager at Amazon Scout  
Seattle, Washington, United States

## Summary

Engineering leader with 7+ years experience in developing and launching successful ML-powered products. Proven track-record of successfully managing and growing high-performing, multi-disciplinary teams dispersed globally.

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## Experience

### Amazon

Software Engineering Manager, Amazon Scout  
June 2019 - Present (3 years 4 months)

Greater Seattle Area

Managing Planning&Controls, On-Robot Runtime Framework and Autonomy Safety Subsystem.

### MTailor

CTO & Co-Founder

June 2012 - March 2019 (6 years 10 months)

San Francisco Bay Area

MTailor makes custom clothing by measuring you with your phone's camera. MTailor raised \$5.6 million led by Khosla Ventures and is profitable.

### Engineering Accomplishments:

- \* Developed a maximum a posteriori generative algorithm to take body measurements; empirically proved generated measurements are 20% more accurate than a professional tailor. This patented technology was the foundation to the business
- \* Built a bespoke convolutional neural network to predict a customer's preferred fit with greater accuracy. The CNN reduced the internal regret measure by 8%, decreased returns and improved customer satisfaction
- \* Created pattern generation engine to convert customer's preferred fit to CAD model for easy cutting and sewing; technology allowed manufacturing to be expanded outside of specialized factories in Northern China which paved the way to profitability

- \* Built and designed the iOS app that has been downloaded 1M+ times and has a 3.8K reviews and 4.7 star rating

#### Business Accomplishments:

- \* Co-founded and grew the business to profitability and \$10M+ per year in revenue
- \* Directly managed \$1M+ per year in advertising spend and placed weekly bids to optimize customer acquisition
- \* Developed statistical models to understand user acquisition and project future revenue. Statistical model drove profit and loss forecasts and guided all major business decisions

#### Management Accomplishments:

- \* Recruited, hired, and managed the engineering, operations, performance advertising, and finance teams; team grew to 300 members globally
- \* Established and managed MTailor's manufacturing subsidiary in Bangladesh from hiring the CEO to achieving economically successful scale
- \* Recruited and hired U.S. Head of Operations and directly supervised scaling team and moving certain work offshore

#### Stanford University

Research Assistant (Math Department)

September 2011 - June 2012 (10 months)

Stanford, California

- \* Proved the first lower bound on the performance of a prominent randomized linear algebra algorithm for efficiently computing approximate SVD and QR decompositions
- \* First author on paper published in Algorithmica Theoretical Challenges in Machine Learning 2013: <https://arxiv.org/abs/1308.5697>
- \* Facebook uses the algorithm and open-sourced their implementation: <https://github.com/facebook/fbpca>

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## Education

#### Stanford University

Bachelors of Science (double major), Mathematics with Honors; Computer Science with Honors · (2008 - 2012)