

Nikhita Singh

engineering / design / robots / data

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Education

University of California-Berkeley, B.Sc. in Industrial Engineering & Operations Research

2010-2014



Industry Experience

Palantir Technologies, Product Driver (*New York City, Paris, Los Angeles*)

2013-Present

- Led team to research, design, and implement a product to algorithmically score deal effectiveness and provide recommendations for improvement through collaborative filtering.
- Developed techniques to evaluate risk exposure to natural catastrophes for a global insurance company through geocoding, natural language processing and statistical modeling.
- Conducted analysis using Python, MATLAB and implemented product features in Javascript and CSS.

Loose Button, Business Operations (*Toronto*)

Summer 2012

- Implemented metric-driven strategies to maximize conversion funnel, resulting in a 40% increase in conversion and a record high in monthly sales (\$200,000 new recurring revenue).
- Led launch of membership in United States and developed partnership projects with Chatelaine, Mastercard, Lancôme and Rogers.

Rypple (acquired by Salesforce), Business Operations Analyst (*Toronto*)

Summer 2011

- Developed and managed an executive dashboard to display trends in sales, resulting in increased conversion and lowered cost of customer acquisition using SQL and VBA Macros.
- Designed and conducted A/B testing of marketing campaigns to achieve 30% increase in customer engagement over 3 month period.



Research Experience

Berkeley Automation Science & Engineering Lab, Dr. Ken Goldberg (*UC Berkeley*)

2011-2014

- Assisted Opinion Space (social media interface used to encourage public dialogue and participatory democracy) team to analyze data and develop new data visualization techniques.
- Worked on an exploratory project to develop custom 3D printed casts. The approach involved working on an effective way to minimize material while providing necessary support. Utilized FEM analysis, 3D-mesh modeling of human anatomy, and optimization algorithms.

Environmentally Friendly Delivery System for Pesticides (*University of Western Ontario*)

2008-2010

- Collaborated with researchers in biology, computer science and engineering to develop an environmentally friendly delivery system for pesticides with up to 90% improvement in retention
- Developed a computer program with data-driven strategies to increase retention customized to each plant based on the results from 1500 individual trials on 10 distinct variables.

Canadian Surgical Technologies & Advanced Robotics (*University of Western Ontario*)

2010

- Assisted with conducting trials on accuracy of robotic sensors in detecting liver cancer.

Robarts Research Institute, Dr. Joaquin Madrenas (*University of Western Ontario*)

2010

- Built a computational model of superantigen (SAGs) behavior to generate hypotheses regarding T cell activation.

Volunteer Work

Field Innovation Team (FIT) – *real-time innovation through technology, design and art in disasters*

- **Robot Petting Zoo:** Led science program in a two-week deployment at the US-Mexico border to develop an innovative, recreational curriculum for unaccompanied migrant minors from Central America including experiment-based projects and a robot petting zoo. Curriculum continues to be used at refugee center.
- **Hurricane Sandy:** Developed and organized an event to raise awareness on Hurricane Sandy through storytelling and art in partnership with The Moth (storytelling organization)
- **Education for Syrian refugee children:** Currently working on a project to design curriculum for Syrian refugees in partnership with the Syrian Relief Network

National Association for the Blind (*New Delhi, India*) – *Volunteer:* Helped create a Braille library for blind children

Youth Science Foundation Canada – *Board Member:* Developed programming to teach kids Math and Science

Act With Art – *Founder and President:* Art for community development and empowerment



Selected Independent Projects

Berkeley Innovation, VP Partnerships & Marketing and Design Consultant

- Collaborated with Frog Design to design, prototype and test a product to increase funding in National Parks
- Designed and developed a phone application (Campus Insight) for students to share opinions and ideas on campus. Project placed 4th in the Big Ideas at Berkeley competition.

Designing a Data Dashboard, *Sonos Inc.*

- Worked with team to design, prototype, and build a comprehensive dashboard for consolidating data sources throughout the company using VBA, Python, and design tools.
- Developed bass diffusion forecasting models and implemented principal component analysis to identify trends.

Emergency Management System Design

- Led team to design and prototype a novel solution with deployable “wireless backpacks” and a phone application for emergency management at UC Berkeley

Bomb Retrieval Robot

- Worked with team to design and implement a Lego NXT Mindstorms bomb retrieval robot operating in a maze using a shortest-path algorithm



Key Awards

Canada’s Top 20 Under 20 – National award for community leadership, innovation, and achievement

Leading Girls, Building Communities Award – Awarded by Government of Canada

Intel International Science and Engineering Fair – Team Canada (1 of 16 across the nation) for two consecutive years



Relevant Skills

Engineering

Python & Pandas
Java, Javascript
CSS, SQL
Matlab
Arduino
Lego Mindstorms
SolidWorks, AutoCAD

Relevant Coursework

Probability & Statistics
Relational Algebra
Supply Chain
Industrial Robotics
Human Computer Interaction
Linear Programming
Discrete Event Simulation

Design

User Interface Design
User Research
Experience Design
Wire Framing
Rapid Prototyping
Graphic Illustration
Adobe Illustrator

Art

Acrylics
Watercolor
Drawing
Wood Burning
Laser Cutting
Photography
Ceramics