

# Rakshak Talwar

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## Education:

### University of Houston 8/2013 - Present

- Bachelor's of Science in **Computer Engineering**
- Current Status: Junior
- Expected graduation date: 5/2018
- GPA: 3.1

## Hackathons:

### Houston Hackathon and CodeRED Spring 2015

- Vincent:
  - Crime predicting for the Houston Police Dept. using machine learning
  - Later met with HPD officers over a span of 6 months to further understand their process of fighting crime from the beat to the analytical side

### CodeRED Fall 2015

- Hillary Clinton Email Viewer:
  - Used machine learning to better display the plethora of Clinton's released emails
    - Clustered based on content similarity
    - Sentiment Analysis

## Work Experience:

### Senior Software Developer at Bits and Data Labs, 8/2016 -

- Primarily will lead software development alongside business development
- Applicable skills: machine learning (incl. deep learning), cloud computing, application development (incl. APIs)

### Undergraduate Researcher - Computational Biomedicine Lab at UH, 5/2016 - 8/2016

- Developing a machine learning application in the crux of human emotion and music

### Co Founder of RaptorBird Robotics, 3/2014 - 10/2015

- Played lead business role and developer role
  - Product management, marketing, crowdfunding, sales, financial
- Co-invented RAVN, a smart drone development platform. Primarily in hardware.

### Co Founder of Parabyte Intelligence, 10/15-01/16

- Played lead business role and developer role
- Worked on a civic project to help the City of Houston search their spending history
- Received cash and award from City of Houston to further pursue and implement

### Software consulting Projects:

- Victoria: Machine learning tool which curated products for an online businesses based on their customer's preferences. Developer and business roles. **12/14 - 3/15**
- Timmy: Software price checking tool which reduced a warehouse's month's worth of labor to 24 hours of computation. Developer and business roles. **06/15 - 10/15**
- QuoteNinja: Cloud based quoting tool which increased the number of large orders for a warehouse. Business role. **04/15 - 07/15**

### **Crowdfunding Experience:**

#### Programmable Capacitor (Kickstarter) 10/13 - 2/14:

- Electrical engineering prototyping tool with a successful funding on Kickstarter and shipped over 230 devices

#### RAVN Smart Drone Development (Kickstarter) 12/14:

- Drone development tool which allowed common drones to be programmed at a high level

### **Startup Accelerator Experience:**

#### Alumni of RED Labs Startup Accelerator 2/2014 - 8/2014

- University of Houston Startup accelerator
- Worked in a team to build up a company (RaptorBird Robotics)
- Pitched to 500 people
- Met and learned from investors, lawyers, entrepreneurs, instructors, and other startups across many stages
- Learned how to engage with many diverse groups of people which are critical to any company's growth

#### Mentoring Summer 2015

- Mentored RED Labs (UH) and OwlSpark (Rice University) startups

### **Special Skills:**

- Software Dev:
  - Languages
    - Python (*strong working proficiency*)
    - Processing/Arduino (*fairly proficient*)
    - C/C++ (*limited proficiency*)
    - Java (*limited proficiency*)
    - MATLAB (*limited proficiency*)
  - Artificial Intelligence/Machine Learning
    - Scikit-learn, Lasagne/Theano, numpy, pandas, matplotlib in Python
    - Deep learning
    - Supervised Learning
    - Unsupervised Learning

- DB
  - MongoDB (NoSQL)
  - SQLite
- Version Control
  - Git
    - Github, Bitbucket
- Virtual Servers/Cloud computing
  - AWS
  - Azure
- Lean/Agile Software Dev
- OS
  - Linux (primarily Ubuntu, Debian)
    - Proficient in command line
- Applied Electronics Development
  - EAGLE CAD PCB design
  - Designing electronic hardware
    - mixed signal, digital
- Soft Skills:
  - Public Speaking/Presenting
  - Project Management
  - Keeping Team Morale Strong
  - Product Development
- Business Development
  - Lean Startup
- Mathematical
  - Statistics
  - Calculus (including multivariate)
  - Ordinary Differential Eq.
  - Linear Algebra
  - Discrete

**Awards:**

- ConocoPhillips Engineer with Spirit Award at UH **2014**