# Bhuvan Venkatesh

Data Scientist · ML Enthusiast

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## Education

### University of Illinois at Urbana-Champaign

*Urbana, Illinois*

Master of Computer Science

*August 2018 - March 2019*

- Graduated with 3.91 GPA
- Focus Area of Machine Learning and Human Computer Interaction

### University of Illinois at Urbana-Champaign

*Urbana, Illinois*

Bachelor of Science in Computer Science

*August 2015 - March 2019*

- Graduated Honors with 3.71 GPA
- Focus Area of Machine Learning and Big Data

## Skills

### Specializations

Data Science, Machine Learning, Cloud Systems

### Languages

Python, R, C/C++, Ruby, Javascript

### Technologies

Linux, Spark, Cassandra, Hadoop

## Experience

### University of Illinois at Urbana-Champaign

*Urbana, Illinois*

Head Teaching Assistant - Systems Programming

*August 2018 - May 2019*

- Organized roughly 20 course assistants to innovate on teaching methods
- Co-Authored an open source textbook for class to use
- Led nerdy lab sections of 30 people to help students brush up on concepts

### Facebook

*Menlo Park, California*

U.S. Election Integrity Data Science Intern

*May 2018 - August 2018*

- Developed trash news detection algorithm to identify low quality political news for the upcoming election
- Detected about one 1 million “junk” views a day spanning over 2000 pages
- Landscaped the political discourse ecosystem with series of research reports

### University of Illinois at Urbana-Champaign

*Urbana, Illinois*

Course Assistant

*August 2016 - May 2018*

- Co-Taught honors class of about 50 Students about advanced systems programming
- Mentored groups of students through cool semester long systems projects
- Tutored students during office hours to help them through conceptual problems

### University of Illinois at Urbana-Champaign

*Urbana, Illinois*

Researcher/Staff Member at the Illinois Data Science Initiative

*January 2017 - January 2018*

- Investigated different cloud platforms pros and cons with respect to graph processing
- Compared the methods for doing a simple Laplacian dimensionality reduction for community detection
- Taught applied cloud computing class of 30 students with a semester-long project

### Fitbit

*San Francisco, California*

Sleep Stages Software Engineering Intern

*May 2017 - August 2017*

- Developed and architected back-end Java/Scala microservices for new product
- Documented infrastructure and integration for the sleep stages product
- Accelerated team's velocity by implementing user stories and fixing bugs

### Oracle

*Deerfield, Illinois*

Software Engineering Intern

*May 2016 - June 2016 (Textura, Acquired),*
*June 2016 - August 2016 (Oracle)*

- Developed full stack web applications using Django, Oracle DB, and Angular JS
- Implemented build tools and helpers for merger transition
- Transitioned database migrations from postgresql to oracle and optimized queries

## Awards/Certifications

02/2019 **Teachers Ranked As Excellent (Top 10%),** University of Illinois at Urbana Champaign — *Urbana, Illinois*

05/2018 **Deans List,** University of Illinois at Urbana Champaign — *Urbana, Illinois*

12/2017 **Deans List,** University of Illinois at Urbana Champaign — *Urbana, Illinois*

12/2015 **Introduction to Linux 101,** Coursera

## Writing & Presentations

### Systems Programming Coursebook

*University of Illinois*

Co-Author

*January 2018 - PRESENT*

- Open source introduction to systems programming complete with illustrations, proofs, and references
- https://github.com/illinois-cs241/coursebook

### 17th Annual Information Ethics Roundtable

*Boston, Massachusetts*

Panelist/Presenter

*April 2019*

- Hosted a discussion-based panel about algorithmic unfairness in practice
- Developed general guidelines for acting ethically within an organization
- Participated in discussion other conference attendees hosted

## Projects

### Springboard Judge

Real Time Dive Scoring

- Predicts olympic dive scores using machine learning, computer vision, and system level optimizations in real time.
- Written using Python, OpenCV, Scikit Learn and Logisitic Regression
- Validated against real dives from the 2012 Olympics
- https://github.com/bhuvy2/Electronic-Judge

### Activity Recognizer

Recognizing Activities from Accelerometer

- Predicts activities – i.e. walking, cooking – based on wearable data using artificial intelligence
- Written in python using scikit-learn's data preprocessing and random forests packages
- Validated with phones strapped to wrist

### Super Debugger

Better Debugging

- Built a gdb-like debugger from scratch with a focus on usability
- Supports advanced watchpoints and assertion tracking for faster memory error, logical, and test-based debugging.
- https://github.com/bhuvy2/Super-Debugger