# Athena Kan

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## Education

**HARVARD UNIVERSITY**                                                                                                    Cambridge, MA
AB, Computer Science. GPA: 3.8                                                                                                    May 2019

## Employment

**UBER ADVANCED TECHNOLOGIES CENTER**                                                                   Pittsburgh, PA
*Incoming Software Engineer Intern*                                                                                         Summer 2017

**BOOZ ALLEN HAMILTON, INC.**                                                                               Annapolis Junction, MD
*Junior Researcher (Data Science and Cybersecurity Intern)*                                                 Summer 2016
- Developed anomalous activity detection method in SCADA systems by modelling magnetic field fluctuations with Lempel-Ziv complexity analysis, bag of words clustering, detrended fluctuation analysis, and more.
- Created Android application, implemented multi-line Voronoi charts to visualize data, wrote manuscript, and presented to five executive teams on research for revenue-generating proprietary intrusion detection system.
- Led team to top four placement in nationwide competition of approximately sixty intern teams.
- Applied machine learning to develop a predictive model to detect intrusion activity.

**HARVARD UNIVERSITY**                                                                                                    Cambridge, MA
*Course Assistant for Introduction to Computer Science I (CS50)*                                        2016 – Present
- Teach topics ranging from data structures/algorithms to machine learning for Harvard's second largest class (800+).
- Hold office hours, debug code on the spot, and walk students of various comfort levels through problem sets.
- Create and teach seminar "Data Science with Python Pandas" with 2K views internationally.

## Technical Experience

**Projects**
- **Mapping Uber Trips** (Flask, JavaScript). Full-stack web app heatmap of top Uber pickups for user-drawn shapes.
- **Email Hunter** (React.js, Python). Web app guessing the email address of anyone from first and last names.
- **Machine Learning with Diabetes** (Python). Create, compare, and visualize results of several different classifiers to predict diabetes subtypes based on patient age, gender, and biometric data. Best classifier was 97% accurate.
- **Facebook Auto-Like** (JavaScript, HTML/CSS). Chrome extension auto-liker of Facebook posts. 1.6k+ users.

**Languages**
- Python (pandas, scikit-learn, statsmodels, matplotlib), JavaScript (d3, React), C, OCaml, Java, C++, HTML, CSS.

## Additional Experience and Awards

Microsoft Grace Hopper Conference Scholar, Coca-Cola Scholar, Maryland Governor's Service Award, Seventeen Magazine 2016 "Power Teen," one of Business Insider's "incredibly impressive kids graduating from high school."

**HARVARD OPEN DATA PROJECT**                                                                                 Cambridge, MA
*Co-Lead, Research and Development Team Lead*                                                                  2015 – Present
- Build an interactive UI, data visualizations, and applications for Harvard's first open data portal in collaboration with Harvard's CTO, the former deputy CTO of the US, and other undergraduates.
- Correctly predicted the winner (and the order of four campaign tickets) of Harvard's student government election using data from disparate social media sources.

**COALITION HALTING OBESITY IN CHILDREN EVERYWHERE (CHOICE)**                       Clarksville, MD
*Co-founder*                                                                                                                             2011 – Present
- Spearhead a 501(c)(3) non-profit to engage public on childhood obesity prevention.
- Created and co-organized 4 annual health fairs, with thousands of residents in attendance each.
- Changed county wellness policy to be "one of the best in the nation" per Yale Rudd Center.
- Published two peer-reviewed papers in clinical journals, presented research at international NIH conference (14K+ attendees), and co-wrote $14 million grant.

**HARVARD WOMEN IN COMPUTER SCIENCE**                                                               Cambridge, MA
*Sponsorship Director, WECode Conference Associate Outreach Director, Mentor for Girls Who Code*      2015 – Present
- Co-organized largest student-run WiCS conference and mentor middle school girls about computer science.

**HARVARD CURLING TEAM**                                                                                          Cambridge, MA
*Member of the Nationals Qualifying Team*                                                                          2015 – Present