

# AKANKSHA ATREY

## Curriculum Vitae

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## CAREER FOCUS

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I am pursuing my Ph.D. in Computer Science in the field of Artificial Intelligence and Machine Learning under Dr. David Jensen at UMass Amherst with the intention of pursuing a career in academia. My current research work is oriented towards explainable AI using causal modeling techniques.

## EDUCATION

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| Sept 2017 – present | <b>University of Massachusetts Amherst</b> <ul style="list-style-type: none"><li>- <i>M.S./Ph.D. in Computer Science</i></li></ul>  |
| Aug 2014 – Dec 2016 | <b>University at Albany, SUNY</b> <ul style="list-style-type: none"><li>- <i>B.Sc. Computer Science and Mathematics</i></li><li>- <i>Summa Cum Laude (4.0 GPA)</i></li><li>- <i>Dean's List of Distinguished Students, Presidential Honor Society, Tau Sigma National Honor Society</i></li></ul> |
| Sep 2013 – Jun 2014 | <b>University of Winnipeg</b> <ul style="list-style-type: none"><li>- <i>Only freshmen year of degree completed here (3.96 GPA)</i></li><li>- <i>Dean's Honor List</i></li></ul>  |
| Sep 2010 – Jun 2013 | <b>Fort Richmond Collegiate, Winnipeg, MB</b> <ul style="list-style-type: none"><li>- <i>High School Diploma</i></li><li>- <i>Summa Cum Laude</i></li></ul>   |

## RESEARCH EXPERIENCE

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| May 2016 – Jun 2017 | <b>Rutgers University, New Brunswick (Prof. Vivek Singh)</b><br>"Faces in Places: Real-time Diversity Analytics Using Social Media" <ul style="list-style-type: none"><li>- <i>Field: Machine Learning, Social Computing, Statistics</i></li><li>- <i>Paper accepted in ICWSM 2017</i></li><li>- <i>Paper accepted at ACMMM 2017 (Funded by ACMMM)</i></li></ul> |
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- Aug 2016 – Dec 2016      **University at Albany, SUNY (Prof. Feng Chen)**  
 “Twitter Popularity Diffusion of Presidential Candidates through Detection of Twitter Bots”
- *Field: Machine Learning, Data Mining*
  - *Presented poster at **MIT IEEE Undergraduate Research Conference 2016** (Funded by CEAS, SUNY Albany)*
- Jan 2016 – Feb 2017      **University at Albany, SUNY (Prof. Teresa Harrison)**  
 “E-petition Information Diffusion in Online Social Networks”
- *Field: Informatics, Social Computing, Statistics*
  - *Presented poster at **Digital Government Society Conference 2016***
  - *Paper accepted in **Digital Government Society Conference 2017 (Won best paper award)***
  - *Journal paper submitted in **Government Information Quarterly 2018***
- Nov 2014 – Dec 2015      **University at Albany, SUNY (Prof. Elizabeth Munch)**  
 “Reeb Graph Based Validation of Statistical Predictive Models for the Spread of AIDS”
- *Field: Computational Topology, Statistics, Graph Theory*
  - *Presented poster at **New York Celebration of Women in Computing 2015** (Funded by CCI, SUNY Albany)*
  - *Presented poster at **Grace Hopper Celebration of Women in Computing 2015** (Funded by Initiatives for Women and CCIWIT, SUNY Albany)*

## WORK EXPERIENCE

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- Jan 2017 – Aug 2017      Software Engineer at **IBM, Poughkeepsie, NY**
- *L2 Service for IBM z/OS mainframe. Specifically, I worked with the Supervisor and RTM components.*
- Jan 2015 – Dec 2016      Teaching Assistant (Computer Science) at **University at Albany, SUNY**
- *Introduction to Computer Science, Programming at the Hardware/Software Interface, Systems Programming, Automata Formal Theory*
  - *Responsible for grading, conducting labs and holding office hours*

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| Sep 2016 – Dec 2016 | <p>Software Developer Intern (Backend) at <b>Auto/Mate Dealership Systems, Albany, NY</b></p> <ul style="list-style-type: none"> <li>- <i>Worked on ReportMate, responsible for COBOL to Pre-SQL conversions</i></li> <li>- <i>Languages/Tools: Java, SQL</i></li> </ul>                               |
| Feb 2016 – May 2016 | <p>Software Developer Intern (Backend) at <b>Commerce Hub, Albany, NY</b></p> <ul style="list-style-type: none"> <li>- <i>Worked in Product Stream team, responsible for various updates, writing testing scripts, etc.</i></li> <li>- <i>Languages/Tools: Java, Groovy, MongoDB, Spock</i></li> </ul> |
| May 2015 – Aug 2015 | <p>Web Developer Intern (both frontend and backend) at <b>VoxVilla, LLC, Albany NY</b></p> <ul style="list-style-type: none"> <li>- <i>Responsible for creating database and design of website</i></li> <li>- <i>Languages/Tools: Java, PHP, HTML5, SQL</i></li> </ul>                                 |
| May 2015 – Aug 2015 | <p><b>Office of Marketing and Communications University at Albany, SUNY, NY</b></p> <ul style="list-style-type: none"> <li>- <i>Social surveyor and information gatherer for the SUNY Albany app and website</i></li> </ul>  |

## AWARDS AND HONORS

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|------------|---|
| May 2017   | <b>Lita and Stephen Greenwald Research Fund Award 2017</b>          |
| April 2017 | <b>ISO President's Medal for Exemplary Leadership</b>               |
| April 2017 | <b>Spellman Top Academic Achievement Award</b>                      |
| Oct 2016   | <b>CRA-W Research Scholar (for Grace Hopper Celebration)</b>        |
| May 2016   | <b>Bruce B. and Louise Steen Gravitt Scholarship</b>                |
| Mar 2016   | <b>Spellman Top Academic Achievement Award</b>                      |
| Jan 2016   | <b>Tau Sigma National Honor Society Scholarship</b>                 |
| Jun 2015   | <b>Women and Technology Award and Scholarship</b>                   |
| Sep 2013   | <b>Ross A. Johnston Entrance Scholarship in Math and Statistics</b> |

## EXTRACURRICULAR

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| Jun 2016 – present  | <b>Indian Student Organization – Vice President</b><br>- University at Albany, SUNY        |
| Mar 2016 – present  | <b>Tau Sigma National Honor Society – President</b><br>- University at Albany, SUNY        |
| Sep 2015 – present  | <b>Transfer Student Peer Mentor</b><br>- University at Albany, SUNY                        |
| Mar 2015 – Mar 2016 | <b>Tau Sigma National Honor Society – Secretary</b><br>- University at Albany, SUNY        |
| Jan 2015 – Apr 2015 | <b>Asian Pacific American Conference – Logistics Chair</b><br>- University at Albany, SUNY |
| Aug 2012 – Jun 2014 | <b>Victoria General Hospital – Lunch Distributer</b><br>- Winnipeg, MB, Canada             |

## PUBLICATIONS

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Dumas, C. L., Atrey, A., Lee, J., Harrison, T. M., Fake, T., Zhao, X., & Ravi, S. S. (2016, June). E-petition Information Diffusion in Online Social Networks. In *Proceedings of the 17th International Digital Government Research Conference on Digital Government Research* (pp. 515-517). ACM.

Harrison, T. M., Fake, T., Dumas, C., May, W., DePaula, N., Atrey, A., ... & Ravi, S. S. (2017, June). E-Petitioning and Online Media: The Case of# BringBackOurGirls. In *Proceedings of the 18th Annual International Conference on Digital Government Research* (pp. 11-20). ACM. **(Won the best paper award)**

Singh, V. K., Atrey, A., & Hegde, S. (2017, October). Do Diverse Social Interactions Make Us Smile More Often? Studying Smiles and Diversity Via Social Media Photos. In *ACM Multimedia 2017* (pp. 1818- 1827).

Singh, V. K., Hegde, S., & Atrey, A. (2017, May). Towards Measuring Fine-Grained Diversity Using Social Media Photographs. In *ICWSM 2017* (pp. 668- 671).

## TECHNICAL STRENGTHS

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| Languages:        | Java, Python, C, MIPS Assembly Language, Groovy, JavaScript, MATLAB          |
| Tools/Frameworks: | MySQL, JDBC, Unix, Mockito, Spock, Apache, Gradle, MongoDB, Jupyter Notebook |