ANNIE K. TANG

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EDUCATION

Duke University, May 2018

B.S. Computer Science, *B.S. Statistics* | *GPA: 3.7/4.0*

Relevant Coursework: Design & Analysis of Algorithms, Software Design & Implementation, Operating Systems, Introduction to Databases, Bayesian & Modern Statistics, Statistical Case Studies, Statistical Decision Analysis, Statistical Inference, Regression Analysis, Probability, Algorithms & Data Structures, Computer Architecture, Discrete Mathematics, Linear Algebra, MV Calculus

SKILLS

- Proficiencies: Java, Python, C, R
- HTML, CSS, Swift, JavaScript, SQL, HiveQL, Hadoop, TensorFlow, Tesseract 4.0, Microsoft Power BI, MIPS Assembly, Cypher (Neo4j QL), Git

PROFESSIONAL EXPERIENCE

AT&T Labs - *Research Intern, Jun 2017 – Aug 2017*
- Conducted machine learning research in the context of Software Defined Networking (SDN).
- Developed an automation tool for day-0 configuration and set-up of Virtualized Network Functions (VNFs) using Optical Character Recognition (OCR) and Long Short Term Memory (LSTM) deep neural networks.
- Applied deep, convolutional neural networks to build a facial recognition tool for secure, multi-factor authentication.

AT&T Big Data - *Data Science Intern, Jun 2016 – Aug 2016*
- Applied graph database Neo4j (first in AT&T Big Data to use this technology) and other statistical tools to data-driven analyses of employee productivity, workflow automation opportunities, and resource management.
- Aided in key decision-making processes that resulted in a XX% increase in employee productivity.

Google - *CodeU, Mar 2016 – Aug 2016*
- Participated in exclusive development and mentorship program to strengthen engineering skills through a technical development curriculum and final programming project. Culminated in all-expense paid summit at Google HQ in August 2016.

Duke University Department of Computer Science - *Computer Architecture Teaching Assistant, Jan 2016 – Jan 2017*
- Taught multiple lab sections, held weekly office hours (both in person and online), and graded homework and exams.

RESEARCH EXPERIENCE

ProtoStar (Honors Thesis) - *Jan 2017 – present*
- Working alongside Duke faculty and PhD candidates to develop an interactive tool that will improve real-time big data query performance analysis through the use of large-scale, multi-level, directed acyclic dependency graphs.
- Thesis researches the use of probabilistic reasoning to define an intelligent method of large-scale data-stream collection and analysis.

Duke Blue Devil Resistome - *Aug 2017 – present*
- Selected to participate in research with Bass Connections (university-wide, interdisciplinary research initiative) and faculty from the Department of Biomedical Engineering and Duke Medical School.
- Researching potential risks associated with healthcare centers, environmental microbes, and infectious diseases through mapping the distribution of antibiotic-resistance genes across the Duke campus and developing computational tools to analyze and disseminate the data.

Computing Research Association for Women, Research Scholar - *2017*
- Selected to be part of the 2017 CRA-W Research Scholars program, which brings together undergraduate women with an interest in computing research for an all expense paid trip to the annual Grace Hopper Celebration (GHC) in Orlando, Florida.
- Provided with mentorship, networking opportunities, and advising toward graduate school and research careers in computing.

Data+, Information Initiative at Duke (iiD) - *May 2015 – Aug 2015*
- Worked alongside the Duke Center for Cognitive Neuroscience to research risk behavior.
- Applied machine learning techniques to predict individual risk behavior preference, culminating in a linear discriminant analysis (LDA) model 40% more accurate than previously available models.

PROJECTS

AnnieKatelynTang.com
- Created personal website using CSS, JavaScript, and HTML. Integrated Jekyll and Github's hosting platform.

Cameron Crazies – Mobile App
- Developed an iOS application in Swift for Duke students to use during tenting season for scheduling and coordination. (Tenting: Duke students form organized groups and sleep in tents from January – February to secure spots in the yearly Duke-UNC home game)

LEADERSHIP EXPERIENCE

Duke Statistical Science Majors Union - *Webmaster, Sept 2016 – May 2017*
Intervarsity Christian Fellowship - *Small Group Leader, 2015 – 2016, 2017 – 2018* | *Large Group Coordinator, 2016 – 2017*