# CURRICULUM VITAE

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## Education

**M.S. Computer Science, Long Island University, May 2018**
**B.S. Computer Science, Long Island University, May 2018**
Graduated with honors and department honors

## Interests

Creative computing; generative art/music; computational theory; chaos theory and related quantum mechanics; computer science education

## Experience

2018 - Present **Adjunct Professor, Long Island University (LIU)**
School of Business, Public Administration, and Information Sciences

2016 - Present **Software Developer, Consolidated Edison Company of New York (CE)**
**Legal Tech & Information Governance Department**

- Developing a system to oversee change management, operational risk, and compliance transparency
- Providing the industry's first cradle-to-grave compliance solution
- Consolidating workflows of compliance procedures, and functional/business requirements for 64+ departments on the regulatory entities of the energy utility industry such as Federal Departments (DOT, DOH, DHS), NERC, PHMSA, OSHA, IEEE, PSC, ASTM, and ISO
- Engineered intelligent web-scrapers and cross-file translators that expedited data population efforts by 85%
- Principal researcher for a software risk prediction method for enterprise management applications based on security metrics
- Studying, under the mentorship of Dr. Anandi Singh, various project management approaches (e.g., Agile, Rational Unified Process, PRINCE2, ISO/1EC15504's SPICE and Extreme Project Management)

2017 - Present **Software Administrator, Consolidated Edison Company of New York (CE)**
**Business Ethics & Compliance Department**

- Responsible for the upkeep, configuration, and reliable operation of standards of business conduct training systems
- Developing reliable and efficient operations of the corporate-wide COI case management system

## Volunteer

2014 - Present **Mentor for Engineering Sciences, Brooklyn Technical High School (BTHS)**

- Making software development more intuitive, secure, and fun

- Collecting programming languages, studying next-gen technology, and helping K-12 students understand the fundamentals of computing
- Taught Digital Electronics, Design and Drafting for Production, Theoretical Computer Science, and Statistics to 45 high school students, resulting in a 5% to 20% increase in their specified course grades

2018 - Present **Stanford Scholars Initiative**

- Developing presentations for research presented by Stanford University staff and researchers
- Working on translations for Computer Graphics and Machine Learning teams
- Producing audio and video content for submission to conferences (CHI, KDD, OOPSLA, etc.)
- Creating supplementary materials for:
  - *An Approximate Dynamic Programming Algorithm for Large-Scale Fleet Management: A Case* Application (Transportation Science, 2008)
  - *Learning Classifier Systems: A Complete Introduction, Review, and Roadmap*
  - *Using Contact Forces and Robot Arm Accelerations to Automatically Rate Surgeon Skill at Peg Transfer* (IEEE Transactions on Biomedical Engineering, 2016)
  - *AlterEgo* (Proceedings of the 2018 Conference on Human Information Interaction & Retrieval - IUI '18, 2018)

2015 – 2017 **Mentor/Teacher, BTHS Girls Who Code (GWC)**

2014 – 2017 **Special Olympics, Assistant Coordinator for the NYC Region Events**

2014 – 2016 **FIRST Robotics Mechanical Engineer & Programmer, Team #334**

2015 – 2016 **Data Analyst, BTHS Special Needs Guidance Dept.**

## Journal Articles

2018; Reviewer/Editor, *Universal Software Platform for Visualizing Class F Curves, Log-Aesthetic Curves, and Development of Applied CAD Systems* (Publication pending in the Journal for Scientific Visualization, National Research Nuclear University)

## Conferences

2018; Principal Researcher, *Voronoi Diagrams: A Critique of the* K*-means for Big Data Mining* (Presented at IEEE SMC Student Branch in May 2018)

2017; Principal Researcher, *An Adaptive & Integrative Knowledge Base Expert Suite for the Screening of Intellectual Disabilities* (Presented at IEEE NY at LIU in December 2017; Presented at IEEE NY at NYIT in March 2018; IEEE R1 Student Paper Winner 2018)

2017; Principal Researcher, *The Relationship Between Handwriting & Reading in Autism* (Presented at IEEE NY at NYIT in March 2018; Presented at IEEE R1 Conference in March 2018; IEEE R1 Student Paper Winner 2018)

Results showing handwriting and reading correlations in children with autism have improved literacy instruction and student performance in Brooklyn public schools

## Technical Reports

2017; Principal Researcher, *Source Code Vulnerabilities & Improvements to the SDLC*, LIU IEEE CS & LIU IEEE SMC (December 2017)

2017; Co-Author, *Security Vulnerabilities of Bitcoin Technology*, LIU IEEE CS & LIU IEEE SMC (November 2017)

## Presentations

2018; Public School 7, *Musical Stimulation for Children with Hearing & Learning Impairments*

2018; LIU, *Common Object Request Broker Architecture*

2017; LIU IEEE CS, *Source Code Vulnerabilities & Improvements to the SDLC*

2017; LIU IEEE CS, *Security Vulnerabilities of Bitcoin Technology*

2015; Microsoft – GWC, *An Introduction to Data Searching & Sorting Algorithms*.
Taught a class of 20 persons the stability, time and space complexities of numerous sorting algorithms, introducing the formal notational methods for stating the growth of resource needs (i.e., Big-O, Little-o, Theta, and Omega notations); Performed detailed analysis in Knuth's MIX language, JavaScript, and Java time and space complexities of program execution

## Professional Service

2018 Curriculum Developer, ACM Computer Science Teachers Association
2018 Member, LIU IEEE Computer Society (LIU IEEE CS)
2018 Member, LIU Student Branch for Systems, Man, and Cybernetics Society (LIU IEEE SMC)

## Professional Associations

2018 Association for Computing Machinery (ACM)
2018 ACM Computer Science Teachers Association
2017 IEEE Computer Society (IEEE CS)
2017 IEEE Systems, Man, and Cybernetics Society (IEEE SMC)
2017 Institute of Physics (IOP)
Computational Physics Group
Quantum Electronics and Photonics Group
Quantum Optics, Quantum Information, and Quantum Control Group
Women in Physics Group