

Jon Saad-Falcon

jonsaadfalcon@gmail.com | (912) 713-0720 | www.linkedin.com/in/jonsaadfalcon | U.S. Citizen

Education

Georgia Institute of Technology — Atlanta, GA

May 2022

Major: Computer Science

GPA: 3.96

- Stamps President's Scholar, Honors Program, and Tapia Scholarship
- Minors in Mathematics and Linguistics
- Undergraduate Research Thesis: *PeopleMap: NLP and Visualization Tool for Mapping Out Researchers*
- Pursuing joint B.S./M.S. Program in Computer Science

Research Experience

Allen Institute for Artificial Intelligence, Semantic Scholar

October 2020 - Present

Pursuing research internship with Dan Weld and Tom Hope

- Creating new exploration techniques for COVID-19 Mechanism Knowledge Base
- Developing clustering algorithms for accelerating the rate of hypothesis generation and literature-based discovery
- Collaborating with medical experts to design better tools for assisting scientific research

Natural Language Processing Research, Speech and Language Technologies Lab

August 2019 - Present

Pursuing research projects with Diyi Yang

- Developing project to computationally analyze persuasion strategies and contexts within dialogue datasets
- Extracting rhetorical strategies from persuasive requests to find patterns and connections in successful attempts
- Analyzing LinkedIn datasets using LSTM models to understand and predict career paths

Human-Centered Artificial Intelligence Research, Data Science and Artificial Intelligence Lab

August 2019 - Present

Pursuing research projects with Polo Chau

- Leading project to build a visual, explorable map of researchers and their work using natural language processing
- Exploring strategies of attack and defense in adversarial machine learning through partnership project with Intel
- Constructed open-source application platform for adversarial machine learning tactics used by over 1000 students

Publications and Demos

EnergyVis: Interactively Tracking and Exploring Energy Consumption for ML Models

- Omar Shaikh, **Jon Saad-Falcon**, Austin Wright, Nilaksh Das, Scott Freitas, Omar Asensio, Polo Chau
- *Preprint, Under Review.*

Mapping Researchers with PeopleMap

- **Jon Saad-Falcon**, Omar Shaikh, Zijie Wang, Austin Wright, Sasha Richardson, Polo Chau
- *Published at IEEE VIS 2020*
- *Earned the VAST Best Poster Research Award, Honorable Mention*

Examining the Ordering of Rhetorical Strategies in Persuasive Requests

- Omar Shaikh, Jiaao Chen, **Jon Saad-Falcon**, Diyi Yang
- *Published at Findings of EMNLP 2020*

Understanding and Fortifying Machine Learning Based Security Analytics

- Demo of the MLSploit platform for experimenting with adversarial machine learning techniques
- *Presented at 2019 NSF Secure and Trustworthy Cyberspace Principal Investigators Meeting*

Industry Experience

Summer Analyst in the Global Investment Research Division, Goldman Sachs

July - August 2020

- Initiated an independent project using quantitative techniques and NLP tools to perform valuation of companies
- Collaborated with traders and external clients to develop reliable Python tools for extending coverage of sectors
- Assisted energy sector research team as they advise corporate clients on financial decisions

JADE Technologies, Co-founder of Atlanta-based student startup

August 2018 - March 2020

- Leading development of Étude, an advanced PDF reader designed for professionals
 - Established partnership with Wolfram Research to implement their natural language processing APIs in a new product
 - Implementing textual analysis APIs for smart summarizer and smart word search capabilities
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Honors and Awards

Stamps President's Scholarship , Georgia Tech	Fall 2018
<ul style="list-style-type: none">• Premier scholarship given to undergraduate students at Georgia Tech• Given to 40 students out of 30,000 applicants to Georgia Tech• Covers over \$200,000 in tuition, room & board, and enrichment funding towards academic development	
President's Undergraduate Research Award , Georgia Tech	Fall 2020
<ul style="list-style-type: none">• \$1,500 award to support undergraduate research with Georgia Tech faculty advisor	
Pathways to Graduate School for Rising College Seniors , Princeton University	Summer 2020
<ul style="list-style-type: none">• Competitive program designed to prepare students for graduate school applications• Aimed towards students with "a strong academic record and excellent research potential"	
Oxford Machine Learning Summer School , Oxford University	Summer 2020
<ul style="list-style-type: none">• Competitive two-week summer school for researchers and engineers in academia and industry• Centered around exposing students to the latest advancements in machine learning through workshops and lectures	
D.E. Shaw Nexus Fellowship , D.E. Shaw and Co.	Fall 2020
<ul style="list-style-type: none">• Three-day program for exposing talented students in STEM to careers and opportunities in finance	
Citadel Securities Trading Challenge , Citadel Securities	Spring 2020
<ul style="list-style-type: none">• Placed first out of 26 competing teams in simulated trading challenge at Georgia Tech competition	

Conference Participation

November 2020 - **EMNLP 2020**, Student Volunteer
July 2020 - **ACL 2020**, Student Volunteer

Skills

Programming:	Python, Java, and Javascript (advanced), Scala (intermediate), C and Assembly (proficient)
Concepts:	Machine learning, natural language processing, computational social science, data visualization, deep learning, functional programming, statistics, algorithms, complexity theory, automata theory, graph theory, quantitative finance, algorithmic trading, artificial intelligence
Communication:	Presentations, conference papers, technical reports, lab write-ups, research posters
Language:	English (native), Spanish (native), Arabic (beginner)

Volunteering

Investment Committee , Quantitative Analyst, Georgia Tech Student Foundation	<i>January 2019 - Present</i>
<ul style="list-style-type: none">• Perform risk management, company valuation, and credit research for the Fixed Income team• Collaborate with fellow analysts to research sector trends, hedge investments, and determine market signals• Assist in developing forecasts and recommendations for a portfolio worth over \$1.4 million	
Computer Science Outreach Club , Founding Member and Volunteer	<i>July 2020 - Present</i>
<ul style="list-style-type: none">• Developed coding workshops and lectures to teach underprivileged youth from Atlanta-area highschools• Assist students in their college application process as well as guide their preparation for summer internships	
Outdoor Recreation at Georgia Tech , Expedition Leader	<i>August 2018 - Present</i>
<ul style="list-style-type: none">• Coordinate and lead multi-day expeditions for dozens of Georgia Tech students across the U.S.• Teach classes in survival skills, wilderness first aid, leadership, and advanced cascading for avid outdoorsmen	
Stamps National Convention Committee , Communication Subcommittee Intern	<i>August 2018 - April 2019</i>
<ul style="list-style-type: none">• Administered communications between 55 partner schools and 800 scholars from across the U.S.• Designed and implemented graphic design coding for the Stamps Convention app and website	
