Marc Marone

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Education

Georgia Tech — Expected Dec. 2018
BS in Computer Science (concentrations in *Theory* and *AI*) — GPA: 3.95/4.0

Experience

Microsoft | Software Engineering Intern — May 18 - Aug 18

- Built a streaming anomaly diagnosis system to analyze Bing data at thousands of queries per second
- Used interpretable machine learning models to analyze root causes and reduce incident resolution times
- Designed a high performance service to deliver anomaly metrics in near real time using Python, Redis, and d3.js

Quantlab Financial | Software Engineering Intern — May 17 - Aug 17

- Built an anomaly detection service for analyzing high frequency trading data using Python and Elasticsearch
- Applied signal processing and unsupervised clustering methods to detect and correlate performance anomalies
- Directly influenced trading activity through dynamically generated reports on network and market data

Georgia Tech | Undergraduate Researcher — Aug 17 - Present

- Researching Natural Language Processing (NLP) with a focus on document level models under Dr. Jacob Eisenstein
- Developed deep neural models for tasks including summarization and translation using PyTorch

Georgia Tech | Teaching Assistant — 5 Semesters

Artificial Intelligence: — 1 Semester

- Assist students in understanding AI concepts including heuristic search, decision trees, and neural networks

Object Oriented Programming: — 4 Semesters

- Planned and taught lectures about Java to 50+ students, designed and graded homework assignments

Projects

Steganographic Encodings | Course Research Project

- Investigated image encoding in adversarial networks (GANs) for image translation (publication in preparation)

StyleGT | Photo booth

- Built a neural style transfer photo booth, used at an outreach event for 200 metro Atlanta high school students

Airbnb vs Hotels | Data Analytics Project

- Built a visualization comparing Airbnb listings to hotels in New York for CX 4242: Data and Visual Analytics
- Designed a sentiment analysis pipeline to assess opinions on multiple aspects of housing quality from 750,000 reviews
- Worked with team members to design a d3.js based interface showing geographic price variation and analysis results

PaiZZA | Winner HackDuke 2016

- Created an intelligent search engine for Piazza, a course forum platform used at 1,500 universities
- Designed a service to retrieve similar forum questions using information retrieval and topic modeling techniques

Involvement and Awards

President's Undergraduate Research Award | Research Grant

- $1,500 award to fund work on neural models for simultaneous summarization and language modeling

Outstanding Sophomore | Departmental Honor

- Awarded by the department to a single student for excellence in academics and extracurriculars

GT Agency | ML Club (Internal Operations Officer)

- Present weekly talks and tutorials on new research in deep learning to club members

Selected Courses

Machine Learning • Natural Language Processing • Graduate Advanced Computer Vision
Linguistics • Robotics & Perception • Data & Visual Analytics • Advanced Algorithms (Optimization)