Alexander Wang

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 awang9999 | awang9999

EDUCATION

	Cornell University	(GPA: 3.86/4.00)

2019 - 2022   B.A Computer Science (Machine Learning and Scientific Computing Concentrations)
2019 - 2022   B.A. Mathematics (Applied Math Concentration)

WORK EXPERIENCE

Amazon Music SWE Intern   May 2022 - Aug 2022

– Designed and implemented an aggregated data dashboard for the content publication pipeline capable of analyzing >1M inbound requests per day.
– Integrated React.js, Java, AWS Redshift, SQS, S3, and CloudFormation to develop this tool. Used Mockito as the primary unit testing framework.

Amazon AWS Connect SWE Intern   May 2021 - Aug 2021

– Redesigned and refactored a customer resource deletion API to adher to GDPR regulations capable of handling > 100k requests per day.
– Utilized Java, AWS SQS, AWS EC2 in the reimplementation. Used Mockito to write unit tests.

RESARCH EXPERIENCE

Researcher at Cornell University   Aug 2022 - Present

Advised by Professor Anil Damle

– Developed a novel retraining-free model compression method based on interpolative decompositions and applied it to transformers and large language models.
– This method, termed STAT, reduced the size of OPT-1.3B, an open source 1.3B parameter large language model, by 20% without a serious reduction in perplexity score on common benchmark datasets.
– Paper submitted to NeurIPS and will be available publicly soon.

ProjectX 2021 Undergraduate Research Competition   Aug 2021 - Feb 2022

– Lead a team of 6 undergraduate students to investigate the spread of misinformation on Twitter during 2020 and 2021 using a fine-tuned BERT for detecting misinformation.
– Won the competition ($25,000 prize) and presented at the 2022 UofT AI conference. (citation below)

PUBLICATIONS

Wang, Alexander et al. (2022). *"COVID-19 was a FIFA conspiracy #curropt": An Investigation into the Viral Spread of COVID-19 Misinformation.* arXiv: 2207.01483 [cs.CY].

SKILLS

Technical:	Java, C, C++, Python, React.js, TypeScript, HTML/CSS/JS, SQL
Tools:	(Arch) Linux, Emacs, Vim, LaTeX, AWS EC2/SQS/S3/CloudFormation
Libraries:	PyTorch, Numpy, Pandas, Seaborn, LAPACK