Alexander Wang

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EDUCATION

Cornell University
Aug 2019 — Dec 2022 B.A Computer Science (Machine Learning/Scientific Computing)
Aug 2019 — Dec 2022 B.A. Mathematics (Applied Math)

WORK EXPERIENCE

Amazon AWS HealthOmics Software Engineer II   Jan 2024 — Present

– Designed and implemented a reusable system for adding GPU and high-compute instance types for AWS HealthOmics engines and workflow tasks. (Kotlin, ECS, DynamoDB)
– Designed a new database schema to reduce millisecond latency for starting workflow runs. Develop mechanisms to keep the database up-to-date based on incoming event logs. (Kotlin, Python, DynamoDB, Eventbridge, Kinesis Streams).

TAE Power Solutions SWE Intern   Aug 2023 — Dec 2023

– Designed a testing procedure for the CANopen library for microcontrollers.Wrote tests to cover over 20 modules in C by leveraging Unity, CMock, and Ceedling.

Amazon Music SWE Intern   May 2022 — Aug 2022

– Designed and implemented an aggregated data dashboard for the content publication pipeline capable of analyzing over 1M inbound requests per day using React.js, Java, AWS Redshift, SQS, S3, and CloudFormation to.

RESEARCH EXPERIENCE

Researcher at Cornell University   Aug 2022 — Aug 2023

Advised by Professor Anil Damle

– We developed a large language model pruning algorithm that reduced the size of OPT-1.3B, an open source 1.3B parameter large language model, by 20% without a severe reduction in perplexity score on common benchmark datasets.
– 📄 [STAT: Shrinking Transformers After Training](#)

ProjectX 2021 Undergraduate Research Competition   Aug 2021 — Feb 2022

– Led a team of 6 undergraduate students to investigate the spread of misinformation on Twitter using a fine-tuned BERT Model. Our paper won the competition ($25,000 prize) and presented at the 2022 UofT AI conference.
– 📄 [An Investigation into the Viral Spread of COVID-19 Misinformation](#)

SKILLS

Technical: Java, Kotlin, C, C++, Python, React.js, TypeScript, HTML/CSS/JS, PostgreSQL
Tools: AWS, Terraform, (Ubuntu, Arch, NixOs) Linux, Emacs, LaTeX, Postman, Slurm, Ollama