Vernon Luk

Education

June 2023 (Expected)	**Carnegie Mellon University**	Pittsburgh, PA

Bachelor of Science in Statistics and Machine Learning
Quantitative Social Sciences Scholar

Experience

Bloomberg L.P. — Jun – Aug 2021 — Princeton, NJ
Software Engineering Intern — Machine Learning
- Developed on a LSTM machine learning model in PyTorch that extracts actionable text from financial documents.
- Built and deployed a Kafka processor to injest, abridge, and collate textual fields for non-relational databases.
- Reduced the average time to process a 38k word document from over 1 hour to under 7 minutes.

Bloomberg L.P. — Jun – Aug 2020 — New York, NY
Software Engineering Intern — User Telemetry
- Designed and developed a nearline service in C++ to analyze global Bloomberg Terminal client usage patterns.
- Anonymized search histories to deliver real-time personalized search recommendations.
- Created a continuous integration build pipeline with automated testing, deployment, and monitoring.

6Crickets — Jun – Aug 2019 — Seattle, WA
Software Engineering Intern — Content Ingestion
- Built a high-performance, multithreaded web crawler to gather market data and facilitate customer acquisition.
- Designed an asynchronous webpage classification algorithm that categorized frontend interfaces.
- Deployed the Python application to successfully discover over 15k potential clients in the education industry.

Cubes in Space Club — 2015 – 2020 — San Francisco, CA
Founder and President
- Founded a student organization to develop and deploy science experiments in a NASA-sponsored program.
- Organized 3 teams of students over 4 years, launching 7 experiments to the stratosphere and 5 to outer space.

Awards

American Invitational Mathematics Examination (AIME) — 2017 – 2020
- 2019 Exceptional Performance in Carlmont Math — highest combined AMC and AIME scores among all students.
- Top 500 placement among the 6,350 students invited to AIME, out of 16 million American high school students.

Projects

Available at github.com/vluk. — 2016 – 2021

Baymax, Intelligent real-time chatbot on Discord powered by recurrent neural networks trained on user interactions.
Cutie, Internet application that asynchronously retrieves online mathematics exercises formatted in LaTeX.
Faceapp, Mobile application to help dementia patients recognize close friends and family through facial recognition and AR.
Avocado, Web and iOS apps for encoding and decoding data in videos using OpenCV and Tensorflow Lite.

Skills

Languages	Data Analysis	Tools
C++	Tensorflow	Linux
Python	PyTorch	SQL
Java	Pandas	Cassandra
Haskell	Spark	Kafka