Emily Wang

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Education

Cornell University College of Engineering   **Expected May 2024**

Bachelor of Science: Computer Science (major), Applied Mathematics (minor)   *GPA: 4.03*

- **Relevant Coursework**: Stochastic Processes, Computer Systems and Programming, Machine Learning, Algorithms, Probability and Statistics, Java Object-Oriented Programming, Discrete Structures, Linear Algebra, Differential Equations, Computer Vision, Computer Networks*, Operating Systems*, Computer Graphics*, Real Analysis*
- **Activities:** Cornell Data Science (Intelligent Systems), Cornell Quant Fund (Blockchain)
- **Staff Positions:** Computer Systems and Programming TA (Fall 2022)

Thomas Jefferson High School for Science and Technology   **September 2016 - June 2020**

High School Advanced Studies Diploma   *GPA: 4.62*

Skills

- Experienced: Java, C++, Python; JavaScript, TypeScript, Angular, React
- Proficient: OCaml, C; SQL, NoSQL
- Frameworks and Technologies: Jupyter Notebook, PyTorch, Git, Linux, Power BI, Microsoft suite

Work Experience

MongoDB   **June 2022 - August 2022**

Software Development Engineer Intern   *New York, NY*

- Developed in C++ on Abstract Binding Tree – the foundation for MongoDB's new query optimizer
- Implemented *$project* functionality; implemented type-bracketing essential to greater-than/less-than queries
- Designed and implemented translating *$in* expressions in MQL; went from a $O(n)$-sized tree to $O(1)$

InterSystems Corporation   **June 2021 - August 2021**

Software Development Engineer Intern   *Cambridge, MA*

- Learned a proprietary language to create NLP app that expedites patient chart review; presented to two corporate clients
- Rebuilt underlying database structure for enforced foreign keys and optimized querying
- Implemented fuzzy search using the iKnow package to help populate terms for NLP analysis

rapStudy   **October 2020 - June 2021**

Backend Developer   *Ithaca, NY*

- Developed multiplayer functionality in educational technology using React and Firestore
- Proposed and coded UI and database design changes for banner survey functionality and consumer insights

EastBanc Technologies   **June 2020 - September 2020**

Software Engineer Intern   *Washington, D.C.*

- Analyzed bus delays and other transportation statistics for TransitIQ using SQL, Microsoft Power BI & Python
- Optimized performance for real-time data analysis in Azure Databricks, decreasing update duration by 5x

Computational and Experimental Neuroplasticity Lab   **June 2019 - August 2019**

Research Intern, Krasnow Institute at George Mason University   *Fairfax, VA*

- Implemented random forest classifier (in Python) for differentiation between patch and matrix neurons
- Achieved a 2x speedup in neuron modeling simulations by implementing modeling in parallel

Research & Projects

CoalescenceML - Cornell Data Science   **January 2022 - June 2022**

- Launched open-source MLOps framework to develop industry-grade production ML pipelines
- Integrated and tested usage with Evidently and PyTorch into user pipelines

PokerBot - Cornell Data Science   **September 2021 – December 2021**

- Learned a state-of-the-art reinforcement learning with belief state paradigm for imperfect information games
- Trained and benchmarked a recursive belief-based reinforcement learning framework on Kuhn Poker