KLARA CHURA

+1 (857) 452-7721 | Klara.Chura@tufts.edu | clarech712.github.io | github.com/clarech712 | linkedin.com/in/klarachura

EDUCATION

Tufts University, *B.S. in Computer Science and Mathematics* (Medford, MA, US) September 2021 – Expected May 2025
· **GPA** 4.00; Phi Beta Kappa; L. & B. Male Scholarship; Guterman Award; M. N. Gordon J70 Book Prize; Dean's List (6×)
· **Relevant Courses**: Programming Languages, Probabilistic Robotics (Python, C++), Machine Structure and Assembly Language Programming (C, AMD64), Data Structures (C++), Intro to ROS (Python), Intro to CS (C++); Logic, Abstract Algebra I+II, Real Analysis I+II, Linear Algebra, Calculus II, Discrete Mathematics

University of Oxford, Pembroke College, *Visiting Student in Computer Science* (Oxford, UK) September 2023 – June 2024
· **Relevant Courses**: Deep Learning in Healthcare (PyTorch), Machine Learning (PyTorch), Artificial Intelligence (Java), Databases (SQL, PHP), Computational Complexity, Security, Models of Computation, Design & Analysis of Algos (Scala)
· Awarded Collections prize for excellent performance in first-term Collections (exams)

SKILLS

Programming Languages: Python, C/C++, SQL, MATLAB, Java, Scala, PHP
Frameworks: PyTorch, JAX, scikit-learn, ROS, Jupyter, pandas, plotly, Flask, Splunk, Grafana

PROFESSIONAL EXPERIENCE

Tufts Technology Services, *Research Computing Specialist* (Remote, US) September 2021 – May 2023, September 2024 –
· Tested within 3 months ~600 modules on High Performance Computing (HPC) cluster after Red Hat operating system update
· Provided technical support to dozens of researchers by tackling 10+ tickets daily; authored specialist help pages

Imperative Execution, *Quantitative Analyst Intern* (Remote, US) May–August 2023, June–August 2024
· Developed dashboard for ~7000 US equities' ATS market share using Jupyter and SQL backend, now used by two teams
· Built time-series regime-change detector w/ hidden Markov models; wrote Flask app to track symbol-level market volumes
· Refactored and enhanced components of matching schedule optimization towards better liquidity/performance trade-off

CapitOx, *Quantitative Strategies Fund Analyst* (Oxford, UK) October 2023 – March 2024
· Designed pairs-trading strategy w/ Kalman filter; backtested on 100+ stock pairs, yielding +0.2 Sharpe ratio (bit.ly/40jxhMa)
· Built quantitative trading foundations in equity strategies, portfolio optimisation, and options trading during weekly seminars

MIT Schwarzman College of Computing, *Break Through Tech AI Participant* (Cambridge, MA, US) May 2022 – April 2023
· Predicted movie ratings w/ collaborative and content-based filtering in Google-sponsored Kaggle challenge, placing 12th
· Predicted human driving trajectories using MATLAB under supervision of MathWorks representative (bit.ly/3Pll4QA)
· Built ML foundations in-class using Jupyter Notebook, pandas, and scikit-learn

RESEARCH EXPERIENCE

Tufts University, *Student Researcher at MuLIP Lab* (Medford, MA, US) June 2022 –
· Used language hints to guide novelty handling in Minecraft-like domain; wrote 10-page documentation (novelgym.github.io)
· Implemented 12 novelties for NovelGym with the goal of providing an open-world benchmark in neurosymbolic AI
· Built domain for ROS Gazebo simulation of open-ended learning of a LoCoBot; transferred knowledge to real-world setting

Oxford AI Society, *Student Researcher at OxAI Labs* (Oxford, UK) December 2023 – June 2024
· Developed methods to mitigate model collapse in large language models; tested selection strategies in 20+ runs

University of Oxford, *Student Researcher at Foerster Lab for AI Research* (Oxford, UK) November 2023 – June 2024
· Trained IPPO agents in JAX and recovered human game strategies in an investment game without using human data
· Implemented core RL algorithms and structures such as Q-learning and transformers using Jax as part of lab curriculum

Brown Computer Science and **Google Research**, *Student Researcher* (Remote, US) February–May 2022
· Integrated Karel program synthesis domain in 'Pseudo-Labels or an Approximate Distribution' framework using PyTorch

CERN, *High-School Summer Intern at Data Centre* (Geneva, Switzerland) May–June 2018
· Converted infographics from Splunk to Grafana; wrote program querying InfluxDB database and outputting JSON files

AWARDS AND ACHIEVEMENTS

Google CS Research Mentorship Program, *Mentee* Google Research, February–May 2023

PennApps, *Best Use of Convex* University of Pennsylvania, September 2022
· Built online platform for food waste reduction; deployed food-recognition model from Clarifai (getfeta.tech)

MIT Hack for Inclusion, *2nd Place* MIT Sloan School of Management, April 2022
· Outlined outreach programme for MIT Sloan CDO to better connect students and alumni (bit.ly/4gvjac9)