BENJAMIN CHAREST

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EDUCATION

Georgia Institute of Technology — **Aug 2022 – May 2025**
B.S. in Computer Science, AI & Theory Concentrations — Atlanta, GA

- **GPA:** 4.0
- **Honors/Programs:** Deans List, Data Science @ GT, Programming Team, Georgia Tech - Europe
- **Relevant Coursework:** Data-Structures & Algorithms, Object-Orientated Programming, Linear Algebra, Discrete Mathematics, Multivariable Calculus, Probability & Statistics, Intro to Research in ML

WORK EXPERIENCE

Undergraduate Researcher — **Aug 2023 – Present**
Georgia Tech - Europe — Metz, Fr

- Evaluated performance metrics for SOTA point cloud semantic segmentation models including 2DPASS, Point-Voxel-KD, and RandLA when trained on and applied to a locally developed dataset.

Tutor — **Jan 2023 – Present**
Access Test Prep & Tutoring — Atlanta, GA

- Worked one-on-one with 10+ students, fostering their understanding of SAT, ACT, Calculus, and Computer Science.
- Achieved consistent success, driving score improvements of over 200 points on the SAT and 10 points on the ACT.

Software Engineering Internship — **Jul 2021 – Aug 2021**
Integrated Systems Inc. — Darlington, SC

- Orchestrated end-to-end software development for an innovative, automated drink dispensing robot, catering to daily usage by 100+ users at a local brewery.
- Leveraged technologies such as ABB Robot Studio and Python to architect a robust backend, an intuitive user interface, and precision control routines within Robot Studio.
- Overcame intricate challenges, such as ensuring seamless technology compatibility and aligning with industry level design specifications.

PROJECTS

nlp-asset-analysis
github.com/8enji/nlp-asset-analysis

- Developed a Python NLP Pipeline leveraging *PyTorch* and transformers modules, enabling *web scraping*, *summarization*, and *sentiment analysis* of recent stock and cryptocurrency news to potential investors.
- Seamlessly integrated the pipeline with a Python-based SMTP email bot, resulting in a fully *automated* solution for delivering recurring asset analysis reports to investors and analysts, simplifying informed investment decisions.

portfolio-montecarlo-simulation
portfolio-montecarlo-simulation.streamlit.app

- Developed an interactive webapp enabling users to explore various retirement portfolio scenarios, forecast performance using Monte Carlo simulations, and interact with custom graphs and settings, thus allowing knowledgeable investing.
- Utilized *pandas* and *yfinance* to scrape data, *numpy* to perform matrix calculations, and *streamlit* to visualize the results.

personal-portfolio-website
bencharest.com

- Designed and developed a dynamic personal portfolio website using *JavaScript*, *React*, and *Next.js*, showcasing my ability to create unique user experiences.
- Implemented an intuitive user interface that effectively presents information while also fostering seamless navigation and highlighting technical expertise.

LEADERSHIP & INVOLVEMENT

Georgia Tech Programming Team — **Sep 2022 – Present**
Active Team Member

- Engaged in regular collaborative meetings focused on in-depth discussions of complex algorithms, innovative optimization strategies, and advanced programming techniques. Preparing to compete in in the ICPC team competition.

JumpStart — **Aug 2022 – Present**
Corps Member

- Worked part time throughout college as a JumpStart corps member going into pre-K classrooms and offering supplemental instruction and interactive group sessions with children in underprivileged Atlanta communities.

SKILLS AND INTERESTS

Languages/Technologies: Python, pandas, PyTorch, Java, JavaScript, React, nextjs, MySQL, MATLAB, Excel, GitHub
Interests: Finance, Hiking, Skateboarding, Competitive Programming, Data Science, Weightlifting, Music