Achintya Jha

achintyajha.com
Email: achntj@gmail.com
LinkedIn: /achintyajha
Github: @achntj
Phone: (480)-698-6695

EDUCATION

Arizona State University   Tempe, AZ
B.S. Computer Science, B.S. Economics; GPA- 4.2; **Dean's List** (All semesters)   May 2026
Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming & Data Structures, Intro to Programming Languages, Intro to Software Engineering, Applied Regression and Data Analytics, Intermediate Microeconomics
College Activities: Google Developer Student Club at ASU, **Sun Devil FinTech (President)**, DevilFish Robotics

EXPERIENCE

Epigeneres Biotech   Remote
Machine Learning & Data Science Intern   May. 2024 – Aug. 2024
- Created & led the development of new processing pipelines which **improved processing speed by 5 times** for mass-processing of human genome files and generated readable CSV data and custom scatter plots.
- Designed a supervised machine learning model for identifying cancer-related sequences in the human genome files. The model was able to point out important sequences which eliminated searching for such sequences manually for further analysis.
- **Wrote an API** with 10 different options for analyzing genes, mapping information from various online databases and local excel files, and appending information to a final master sheet.

Nucleus Software   Delhi, India
SWE Intern   Jun. 2023 – Aug. 2023
- Worked on development of a Self-Service Customer Portal for General Motors Financial across Latin American countries.
- Enhanced user experience and increased **operational efficiency by 30%** by optimizing page speed and reducing dependencies.
- Developed a comprehensive end-to-end testing solution, ensuring the seamless functionality of the application across all interfaces. **Tools Used**: Spring Boot, Angular JS, Selenium, PL/SQL, ATDD, Agile.

Tech Mahindra   Delhi, India
Machine Learning Research Intern   Aug. 2021 – Nov. 2021
- Implemented intelligent bilingual chatbots using internal libraries for clients like Ford Customer Care Service
- Worked on creating a PDF-based **question answering model** using **Natural Language Processing** and machine learning. **Tools used**: Python, BERT, PyTorch, Word2Vec.

PROJECTS

Portfolio Optimizer & Risk Assessment | https://github.com/achntj/portfolio-optimizer
- Developed a Dynamic Asset Allocation model utilizing **Markowitz optimization** and the **Black-Litterman model** to optimize (stock) portfolio returns and manage risk.
- Implemented advanced risk management techniques such as **Conditional Value at Risk (CVaR)** and **Monte Carlo simulations**, enhancing the precision of portfolio risk assessment.
- Integrated **Reinforcement Learning** to dynamically adjust portfolio allocations in response to changing market conditions, significantly improving real-time investment strategies.

Depression Detection with Machine Learning | www.sentimate.org
- Built a depression detection system from scratch using Machine Learning and Natural Language Processing with an **accuracy of 95%**. Created additional models based on fine-tuning **Hugging Face Transformers** to my datasets.
- Created a unique database of over 1.7 million datapoints using Beautiful Soup and Twitter API to train the model. Created a 12-step data pre-processing pipeline which added **5 percent points to accuracy**.
- Developed a social media web-app to give users a platform to express their thoughts about mental health.
- **Tools Used:** PyTorch, Transformers, Flask, React JS, NLTK, BeautifulSoup, Firebase.

Real Time Auctioning Web App | https://github.com/achntj/auction
- Developed a dynamic full stack web app for online auctioning using Next.js (React) and PostgreSQL, integrating real-time bidding and user authentication for a seamless financial transaction experience.
- Designed a custom dashboard for users to manage and create their auctions bids.

SKILLS

Languages: Java, **C++/C**, TypeScript, JavaScript, **Python**, HTML, CSS (& Tailwind CSS), **SQL, R**
Libraries / Frameworks: **React JS**, Next.JS, **PyTorch**, Prisma ORM, Numpy, **Pandas**, NLTK, BeautifulSoup, SpringBoot
Development Skills: AI/ML, Deep Learning, UNIX, Git, Vim, ZSH, Data Structures, Algorithms, AWS, Google Cloud, CI/CD, Software Security, Software Development Life Cycle, Databases, Bloomberg Market Concepts