Peter Yang

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Education

University of Michigan — Ann Arbor, MI
Bachelor of Science in Honors Mathematics, Computer Science, Statistics, Data Science — *Aug. 2022 – May 2025*
- **GPA**: 3.78/4.00

University of Wisconsin-Madison — Madison, WI
Bachelor of Science in Mathematics, Computer Science — *Sep. 2021 – May 2022*
- **GPA**: 3.89/4.00

Relevant Coursework: Object-Oriented Programming, Data Structures and Algorithms, Web Systems, Computer Organization, Computer Vision, *Numerical Linear Algebra, Real & *Complex Analysis, *Probability Theory, *Stochastic Processes, *Linear Regression, *Machine Learning, *Mathematical Statistics, *Deep Learning for Bioinformatics, Statistical Consulting

*** Indicates Graduate Coursework**

Experience

Software Engineer Intern — May 2023 – Aug. 2023
MathWorks — *Greater Boston, MA*
- Developed and deployed a parser in C++ for time data strings, interfacing with MATLAB to support the parsing of previously unsupported time formats for MATLAB duration objects, resulting in increased customer usability
- Leveraged ISO Unicode and globalization libraries in C++ to achieve comprehensive language support, enabling parsing of data strings in over 250 languages
- Created project spec and employed design patterns to ensure integration and modularity with existing duration parsing format
- Participated in agile sprint cycles involving daily stand-up sessions and one-on-one meetings

Club President — Oct. 2021 – May 2022
UW-Madison Math Club — *Madison, WI*
- Organized Undergraduate Math Colloquia, reaching out to Professors, PhD students, and Masters students
- Collaborated with other student organizations and academic departments to host cross-disciplinary events
- Presented a comprehensive funding proposal, resulting in successful acquisition of funds for club activities

Projects

StockXGuess | *React.js, Spring Boot, PostgresSQL, Bootstrap*
- Developed an interactive web-based game using the React.js framework, where the player guesses the price of ten random sneakers from popular brands on StockX, receiving a score based on accuracy.
- Created a RESTful API in Spring Boot to read and update sneaker and user data from a PostgreSQL database
- Deployed the application online by utilizing proxy tunneling with a local machine

MetaNN | *Python, PyTorch, Pandas, Scikit-Learn*
- Developed a Long-Short Memory (LSTM) Neural Network in PyTorch for the prediction of action potentials within the squid giant axon using the time series data of the input current
- Optimized the model by minimizing Binary Cross Entropy loss using the Adam optimizer
- Achieved an overall classification accuracy of 97.16%, with precision at 98.96%, recall at 97.81%

Options Pricing and Trading Tool | *Python, Numpy, SciPy, Requests, BeautifulSoup*
- Developed a program in Python to find the theoretical price of an options contract using the Black-Scholes model
- Utilized BeautifulSoup to scrape real-time risk free rates and historical volatility by parsing website html
- Used the TDAmeritrade API to display real-time Bid/Ask and last trade price data

Technical Skills

Languages: C, C++, Java, JavaScript, Python, SQL (PostGres, SQLite), R, MATLAB, HTML/CSS, LaTeX
Frameworks/Libraries: React.js, Node.js, Express.js, Spring Boot, Flask, Jinja2, Bootstrap, NumPy, pandas, Matplotlib, seaborn, Scikit-Learn, PyTorch, SciPy, Requests, BeautifulSoup, Selenium
Developer Tools: Git/Github, Unix/Linux, Visual Studio, VS Code, IntelliJ, Perforce, Eclipse, Jira, Confluence