Yucheng Shao

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Education

University of Pennsylvania – Philadelphia, PA GPA: 3.97/4.0

B.S.E. in Computer & Information Science; Minor in Mathematics; Minor in Economics
Sept 2023 - May 2027

- **University Scholars:** Selected among 120 students for Penn's flagship undergraduate research program
- **Relevant Coursework:** Algorithms & Data Structures, Databases, Operating Systems, Applied Machine Learning, Big Data Analytics, Software Foundations, Computer Architecture, UI/UX Design, Product Management

Technical Skills

Languages: Python, Java, JavaScript, SQL, C, OCaml, HTML/CSS
Frameworks & Tools: React, Node.js, PyTorch, TensorFlow, Scikit-learn, Pandas, Git, Regex

Professional Experience

Global Technology Intern – *Broadridge Financial Solutions* June 2025 - Aug 2025

- Building an NLP pipeline in Python to automate XBRL field tagging in SEC filings
- Integrated a Model Context Protocol (MCP) system to extract structured Confluence and Jira data for a generative AI tool; built backend APIs (Node.js) and connected to a React frontend; designed UI to streamline tool selection
- Redesigning the SEC filing web interface to align with Broadridge's design system using React and Java

Research Intern in the Weber Lab – *University of Pennsylvania* May 2024 - Present

- Developed deep learning models in PyTorch to predict p-waves during REM sleep; achieved 98% classification accuracy with Long Short Term-Memory (LSTM) neural network and 0.05 RMSE with CNN using 60+ features
- Augmented training data and visualized waveforms and performance metrics with Matplotlib
- Packaged models into a reproducible pipeline for future deployment on sleep monitoring systems

CIS 1200: Programming Languages & Techniques Teaching Assistant Jan 2024 - Present

- Lead weekly recitations (20+ students) and office hours (350+ students) for an OCaml- and Java-based course on functional programming & software design; Create review materials and guided assignments for 50+ TAs

Projects

Horse Racing Application (React, Node.js, PostgreSQL, AWS)

- Built a full-stack web app to analyze 4M+ horse records using React, Node.js, and PostgreSQL on AWS RDS; applied Python regex for data cleaning and designed normalized schemas
- Wrote optimized SQL queries to identify top trainer–jockey pairs and surface horses outperforming market odds

AirBnB Finder (PyTorch, Scikit-learn)

- Built ML models (XGBoost, Random Forest, Linear Regression) with PyTorch and Scikit-learn to predict prices from 200K+ Airbnb listings based on 10+ features
- Engineered features, tested hypotheses, & tuned hyperparameters; visualized insights with Matplotlib and Seaborn

Leadership & Achievements

Leadership & Awards: PennApps Hackathon Board (2025 Design Lead), IMC x Wharton Finance Club Trading Competition (1st Place), Wharton Asia Exchange x FACT Capital Stock Pitch Finalist (2023)
Extracurriculars: Theta Tau Engineering Fraternity Public Relations Chair; Bubble Bees Crochet Shop Co-Founder