

# Aaron Xu

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## EDUCATION

**Texas A&M University** – College Station, TX

*Expected Graduation: Spring 2026*

*Master of Computer Science*

- Relevant Coursework: Analysis of Algorithms, Deep Learning, Deep Reinforcement Learning, Randomized Algorithms, Software Engineering

**The University of Texas at Dallas** – Richardson, TX

*May 2024*

*Bachelor of Science, Computer Science*

- Relevant Coursework: Data Structures, Advanced Algorithm Design & Analysis, Database Systems

## SKILLS

**Technical Skills:** Java, Python, C++, HTML, CSS, ReactJS, SQL

**Tools:** NumPy, Pandas, Scikit-learn, Keras, TensorFlow, PowerAutomate

**Specialized Knowledge:** Machine Learning, Neural Networks, Deep Learning, Reinforcement Learning

**Certifications:** IBM: Machine Learning with Python (July 2022)

IBM: Introduction to Deep Learning & Neural Networks with Keras (July 2022)

Microsoft Technology Associate: Introduction to Programming Using Java (July 2021)

## EXPERIENCE

**AI Intent Research** – University of Texas at Dallas (Dr. Vincent Ng)

May 2024 – October 2024

- Compiled 4000+ images using Python scripts and OpenCV for AI model training
- Analyzed generated output of trained model leading to improvements of 30%

**L3Harris** – Greenville, TX

May 2023 – November 2023

*Software Engineer Intern*

- Developed automated testing scripts using Bash to validate subsystem interactions
- Integrated code scanning tools into GitLab CI/CD pipeline improving code quality and coverage metrics
- Designed and implemented a serialization framework for Java and C++ subsystem data exchanges

**Cisco-Eagle** – Dallas, TX

June 2022 – August 2022

*Communications and Information Technology Intern*

- Supervised activities on SharePoint and affiliated websites improving system usability
- Migrated company files to SharePoint utilizing Microsoft migration tools
- Automated key business workflows using PowerAutomate reducing manual processes by 80%

## PROJECTS

**AI Game Agent**

Fall 2024

- Used PyGetWindow to capture real-time frames for the game Touhou as input for the AI agent
- Trained the agent using reinforcement learning algorithms running over 1000+ generations
- Experimented with different model architectures such as DQN and DDPG improving model performance by 40%

**Loan Underwriting**

July 2022

- Built a predictive model using Python libraries NumPy, Pandas, and SKLearn to analyze historical customer data
- Achieved 95% accuracy in determining loan approvals by optimizing hyperparameters

**Stock Forecasting Model**

July 2021

- Processed financial data from Yahoo Finance API to train LSTM models in Python
- Improved forecasting accuracy by fine-tuning model parameters and integration of moving averages

## LEADERSHIP & COMMUNITY INVOLVEMENT

**EPIC Movement** – University of Texas at Dallas

Fall 2022 – Spring 2024

*President*

- Directed organizational strategy and managed administrative tasks for a team of 17 officers
- Supervised event planning for 40+ events
- Facilitated bi-weekly meetings to align goals and delegate responsibilities between officers