Annie Hu

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Education

The University of Texas at Austin, GPA 4.0 — Aug 2023 - May 2026
Bachelor of Science in Computer Science, Turing Scholars Honors Program
Coursework: Honors Data Structures, Honors Discrete Math, Honors Computer Architecture, Graduate Prediction Mechanisms in Computer Architecture, Honors Operating Systems, Symbolic Programming

Experience

Software Engineer Intern, Roblox – San Mateo, CA — May 2024 – Aug 2024
- Implemented a Centralized Game Information tool that synthesizes and displays data from several back-end data sources, providing an up-to-date real-time centralized view for relevant game moderation information
- Created an application and API for querying back-end sources, aggregating data, and processing it for centralized display
- Designed a maintainable and extensible architecture and framework, enabling seamless addition of new features such as model asset dependencies and abuse report aggregation
- Developed search, filtering, rich media display, and real-time information retrieval support
- **Technologies:** TypeScript, Python, React, Nomad, FastAPI, Elasticsesarch, Kibana, Grafana, Docker, GitHub Enterprise

Software Engineer Intern, EquipmentShare – Remote — June 2023 – Aug 2023
- Ported an entire tax transaction Python project involving 2 AWS Lambdas to TypeScript/Node.js
- Applied functional programming concepts with fp-ts and io-ts to refactor 2 tax commands in TypeScript
- Migrated infrastructure from AWS CloudFormation to AWS Cloud Development Kit (CDK), upgrading to FIFO SNS topics and SQS queues to ensure FIFO order and deduplication in transaction messaging
- Verified functionality by writing Jest unit tests with mocks and by monitoring AWS CloudWatch logs
- **Technologies:** TypeScript, Node.js, AWS (Lambda, SNS, SQS, CDK, CloudWatch), Jest, fp-ts, io-ts

Teaching Assistant, The Ohio State University – Columbus, OH — Jan 2021 – Aug 2023
- Graded for 11 unique sections and over 400 students for 4 courses: Software Components, Software Development and Design, Low-Level Programming and Computer Organization, and Survey of Artificial Intelligence: Basic Techniques
- Supervised a team of Teaching Assistants (TAs) as Head TA: delegating grading responsibilities, creating rubrics to ensure consistent grading, and streamlining the grading process through the creation of bash scripts
- **Technologies:** Java, C, x86-64 Assembly, Vim, Bash Scripting, JUnit Testing

Research Assistant, The Ohio State University CETI Research Group – Columbus, OH — May 2022 – Aug 2022
- Explored interpretability and debuggability in neural networks with Dr. Rajiv Ramnath
- Built a Neural Network from scratch that identifies handwritten numbers
- Implemented a reverse back-query method to see inside the networks "mind"
- **Technologies:** Python, Jupyter Notebook, Google Colab, seaborn

Personal Projects

Clue Guesser | *React, Django, SQL, JavaScript, Python, Azure VM* — github.com/anniehu17/codenames
- Developed a full-stack web application with Django serving a REST API with React as the front-end
- Engineered an AI algorithm to generate clues for solving a 3x3 board based on the game Codenames
- Implemented a SQL database to persist login credentials and leaderboard information

Technical Skills

Languages: Java, C/C++, Python, JavaScript, TypeScript, x86-64 Assembly, HTML/CSS
Frameworks: Docker, React, Django, Node.js, Grafana, Elasticsearch, Nomad, AWS (Lambda, SNS, SQS, CDK, CloudWatch)

Campus Involvement

Turing Scholars Student Association, Executive Board Corporate Chair — March 2024 – Present
- Coordinate with companies to host corporate recruiting events for 200+ Turing Scholars
- Organize community social events to promote camaraderie and networking among members

Freetail Hackers, Back-End Web Developer — Feb 2024 – Present
- Contribute to an admin portal streamling application and registration for UT-hosted hackathons serving 2500+ users
- Support a robust role-based architecture for administrative tasks, enabling seamless user management, event scheduling, and communication within the organization