EDWARD FENG

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EDUCATION

University of North Carolina at Chapel Hill   Expected May 2023
  B.S. Computer Science, B.S. Statistics
  GPA: 4.0

SKILLS

Languages	Java | Python | C | R | HTML/CSS/JavaScript | SQL
Web	React.js | Node.js | Express.js | PostgreSQL
Technologies	Git | Vim | Linux CLI
Other	Chinese (listening, basic speaking) | Spanish (basic)

EXPERIENCE

Software Engineering Intern   Aug. 2021 – Nov. 2021
Facebook \| Menlo Park, CA

- Extending WhatsApp's automatic device verification to support end-to-end encryption in WhatsApp and Messenger

Software Engineering Intern   May 2021 - Aug. 2021
Cisco Systems \| Durham, NC

- Enhanced Spitfire multicast operation logs by adding ordered sequence numbers to hundreds of traces and reducing redundant logged details, clarifying router state information for both developers and clients
- Added filtered debugs to Spitfire multicast operations, allowing limitation of debug output to a specific virtual routing and forwarding instance, source IP address, and/or group IP address

Software Engineering Intern   June 2020 - Aug. 2020
Cisco Systems \| Durham, NC

- Developed tests for Cisco's new generation of Spitfire routers using pyATS (Cisco's Python-based testing infrastructure), expanding case coverage and preventing regressions in future years
- Wrote parsers using Google's TextFSM that allow for easy access to changing router state information and updated existing tests to take advantage of this abstraction

Machine Learning and Data Privacy Research Assistant   Aug. 2018 - Feb. 2019
Duke University \| Durham, NC

- Assisted in research on the use of artificial neural networks in creating audio-based filters to improve data privacy
- Studied machine learning, including the structure and function of convolutional and recurrent neural networks, as well as their application to spectrograms through Python's Keras library

PROJECTS

Square Lab   PostgreSQL, Express.js, React.js, React Bootstrap, Node.js

- Full stack web aim training game in which users play to click colored tiles on a grid quickly and accurately
- Backend implements user authentication, saving viewable high scores for each account in multiple game modes
- Profile view displays player base score distributions and statistics with graph generation APIs, allowing users to visualize how their personal best performances stack up against others and compete

Conway's Game of Life MVC Implementation   Java

- Java-based simulation of Conway's Game of Life with a GUI built with Java Swing
- User-chosen initial state and board progression rules
- Multithreaded auto-advance feature with adjustable board update speed

AI Checkers   Python

- One-player or two-player checkers game in Python with a GUI created using the Tkinter library
- Computer AI player calculates best move using a recursive minimax function that considers best/worst cases over a chosen number of turns in the future