

Fei Ding

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Education

○ Georgia Institute of Technology | Atlanta, GA

B.S. Computer Science (Concentration: Intelligence and Information Internetworks)

Cumulative GPA: 4.0

August 2018 – Present

Expected Graduation, May 2021

Relevant Coursework

Software Development: Object Oriented Programming, Objects and Design; **Algorithms:** Data Structures and Algorithms, Design and Analysis of Algorithms; **Artificial Intelligence:** General Approaches to AI, Machine Learning; **Systems:** Computer Organization and Programming; **Mathematics:** Linear Algebra, Calculus, Discrete Mathematics, Applied Combinatorics, Probabilities and Statistics

Experience

○ ML@GT Research Center | Atlanta, GA

August 2019 – Present

Undergraduate Research Assistant

- Collecting and cleansing over 200 TV series for training a summary bot using modified RNN and advanced attention mechanism.
- Cooperating with researcher to build a semi-supervised text generation tool that transforms informal sentences to formal style.

○ Changzhou Benqi Internet Technology Co., Ltd | Changzhou, Jiangsu, China

May – June 2019

Web Development Internship

- Designed and implemented the client manager's interface for a hotel reservation administration system using jQuery and JSP.
- Deployed on Alibaba cloud and assisted to refactor the backend management system in Java Spring framework with a SQL server.

Projects

○ Working for Living App

October 2019

Group Hackathon Mobile Application Project

- Applied web scraping technology and libraries to extract useful information from prevalent housing and career-seeking sites.
- Constructed a powerful backend API backed by MongoDB-like databases and able to handle high concurrent query requests.
- Configured communications between two ends and assisted other members in making frontend mobile pages in Android Studio.
- *Disclaimer: hackathon project purely for educational purpose, and scraper is kept indefinitely inactive after event.*

○ Scratch Calculator App

July – August 2019

Personal Mobile/Web Application & Computer Vision Project

- Experimented with various ML algorithms including SVM, DT/RF, and NN on MNIST dataset for digit classification using scikit-learn.
- Proposed and validated convolutional methods for feature extractions from raw images and exploited PCA for faster performance.
- Built, trained manipulated, and tested the classifier model for optimized outcome with 98.3% accuracy on real data.
- Published backend service on servers and designed the interface panel on multiple platforms including Android and web app.

○ Intelligent Chatbot App

March – May 2019

Personal Mobile Application & Natural Language Processing Project

- Collected popular corpora with millions of dialogs on web and wrote Python scripts using BS4 to cleanse, organize, and zip data.
- Learned to design and build a sequence to sequence model under the TensorFlow framework and configured to train 200 epochs.
- Deployed and maintained the backend using Flask on AWS / Alibaba cloud, supporting parallel processing of concurrent requests.
- Designed chatting UI in Android Studio and imported IFLYTECH's audio input/output interface.

○ File Compression Utility Tool

November – December 2018

Personal Applied Algorithm Design Project

- Implemented the classic Huffman encoding and decoding algorithm widely used for popular file compression (zipping) tools.
- Applied and combined knowledge of various data structures and object-oriented software design principles used in architecture.
- Optimized performance by reaching theoretical compression rate of 40% and made available as a web utility tool.

○ Interactive Educational Simulation Tool

January – November 2017

Group Applet/WebApp Project

- Led a CS club team to design and build an interactive system using Java Swing to visualize educational models to assist teaching.
- Migrated to web platforms and incorporated popular JavaScript libraries/frameworks for better UI experience and robustness.
- Analyzed responses and feedbacks by python modules including NumPy, Pandas, and Matplotlib to generate report for instructors.

Skills

Programming: Java, Python (Anaconda), C/C++, HTML, CSS, JavaScript, SQL, MATLAB, Scala, Pascal, Assembly.

Library & Frameworks: Anaconda, BeautifulSoup, Flask, JavaFX, JUnit, jQuery, MongoDB, NodeJS, OpenCV, PyTorch, ReactJS, Selenium, Spring MVC, Swing, scikit-learn, TensorFlow.

Systems: Linux (Ubuntu, Red Hat, CentOS), MacOS, Windows, and remote server deployment / elastic computing cloud.

Tools: Android Studio, Apache Tomcat, GitHub, Jupyter Notebook, SolidWorks, CAD, Microsoft Office, Photoshop.

Languages: English (fluent), Chinese (native).