

Ian Shin

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EDUCATION

University of Texas - Austin

Aug. 2019 – May 2023

Computer Science, B.S. & Mathematics, B.S.

GPA: 3.83

- Data Structures, Computer Architecture, Competitive Programming, Linear Algebra, Operating Systems, Computer Networks, Natural Language Processing
- Calculus II, Discrete Mathematics, Probability and Statistics, Differential Equations

SKILLS

Languages: Java, Python, JavaScript, C

Tools/Frameworks: PyTorch, NumPy, HTML/CSS, React.js, Node.js, Express.js, Flask, MongoDB, Firebase, SQL, React Native, REST, Jira, Linux, Unix, Git

EXPERIENCE

Lockheed Martin

May 2021 – Aug. 2021

Software Engineer Intern

- Collaborating in agile environment to develop features for a cloud (AWS EC2) data ingest & routing service.

Freetail Hackers (UT Organization)

Jan. 2020 – Present

Tech Team

MongoDB, Express.js, React.js, Node.js, Angular.js, Python

- Developed web & mobile applications and a Discord Bot for organizing and running hackathons.
- Worked on components like filtered searching, email sending, and database updating for MERN stack applications.
- Hosted multiple workshops on Git version control and Python at HackTX, Texas's biggest collegiate hackathon.

UT Computational Visualization Center

May 2020 – May 2021

Undergraduate SWE Researcher

Python, PyTorch

- Contributed to research for real-time tumor-tracking with 3D-object tracking using deep reinforcement learning.
- Preprocessed data from multiple datasets and trained deep Markov models for medical research.
- Restored legacy software (*TexMol - 2011*) through updating dependencies and rewriting CMake files.

Mettle Works

May 2020 – Aug. 2020

Software Engineer Intern

Python, Flask, React.js

- Designed and created an intuitive web application to extract useful insights from unsorted data files.
- Processed nginx data with pandas and NumPy to determine trends within data using K-means clustering.
- Used Flask, React.js, and WebSockets to display live calculations and results on analyzed data.

Samsung Research America

May 2020 – Aug. 2020

Software Engineer Intern

Cancelled - COVID-19

CMU Human-Computer Interaction Institute

Jun. 2019 – Aug. 2019

Research Intern – ClassInSight Project

Python, React.js, PostgreSQL

- Improved developer dashboard with frame-by-frame video navigation and greatly optimized image loading time.
- Added new interfaces and endpoints for data deletion with Django, React.js, and PostgreSQL.

PROJECTS

BERT for NER

- Performed Named Entity Recognition by fine-tuning a base DistilBERT model and creating a custom model with BERT, BiLSTM & CRF layers using HuggingFace, PyTorch, and NumPy. Trained on Twitter dataset and wrote extensive analysis and ablation study as part of project.

streak

- Created a web application that incentivizes users to maintain desirable streaks and habits using MongoDB, Express.js, React.js, and Node.js. Incorporated JSON web tokens, cookies, and hashed passwords (bcrypt).

GluClose (2nd Place Winner): <https://devpost.com/software/glucose>

- Built at PennApps XVIII in 2018; placed **second overall** out of over 200 teams. Constructed a device that approximates blood sugar levels from saliva and mud and notifies a mobile application by sending data from an Arduino using the PySerial library and collecting JSON-converted results in Firebase.