# **Kevin Shen**

https://github.com/KevinShen0123 📮 USA Citizen

#### **Education**

#### Duke University, Pratt School Of Engineeing,

Master Of Science, Electrical and Computer Engineering (Software Engineering Track)
Full Ride Tuition-Covered Scholarship Recipient

08/2022 – 05/2024 Durham, United States

# Xi'an JiaoTong-Liverpool University, School Of Advanced Technology,

Bachelor of Science(Honors Degree),Information and Computing Science Summer Research Fellowship Recipient(100 out of 3500) 2021 09/2018 – 07/2022 SuZhou, China

#### **Professional Experience**

# **Software Engineer Internship,** Duke University Information Technology Office

• Lead two teams of developers to develop two fully functional security enhancement products for duke OIT department.

06/2023 – 08/2023 Durham, USA

- The first team developed a web application to help duke IT professionals to track software bills of
  materials by using React.js, HTML, CSS, Javascript, Bootstrap, Ajax as frontend and Ruby on Rails as
  backend, MySQL as database and deployed the web application with docker on duke virtual machines.
- Used Google's Open Source Vulnerability database for real-time vulnerability updates every 24 hours and integrated duke Shibboleth SAML authentication API for duke student authentication.
- Built enrich features and smooth workflow to analyze the 30000+ lines of dependencies in JSON files with less than 1 seconds and built interactive tree features for user to visualize the dependency tree.
- The second team used Flask framework and HTML,CSS, Javascript to developed and deployed two honeypot websites on duke networks to help duke IT professionals to track and monitor cyber threats on duke networks. The honeypot websites implemented all set of features as a duke website (integrated with duke Shibboleth OAuth API) and successfully attracted numerous attacks each day to duke network.

#### **Software Engineer Internship,** *QianYan Technology*

• Lead the frontend develop team to Design the new UI/UX for the company's official website

• collaborated with company's leaders intensively to developed the frontend of the website which is responsible for displaying all aspects of company's information with Vue.js&JQuery framework.

 Applied Agile methods and work closely with backend groups in weekly meetings, and help the company to deployed the website on Alibaba Cloud Services and choose a custom domain 03/2021 – 06/2021 Foshan, China

## Research Assistant, Xi'an JiaoTong-Liverpool University

 Participated in Facebook Hateful Meme Challenge and finetuned and integrated two large language models based on BERT (UNITER and CLIP) by using pytorch framework to detect multimodal hateful contents, which result in 10% improve on classification accuracy. 06/2021 – 08/2021 SuZhou, China

• Built a website by using Python Flask framework and HTML, CSS, Javascript as frontend, to classify the images with words as offensive or inoffensive.

#### **Projects**

# UPS Service Mini Portal(Python, Django, HTML, CSS, Javascript, Protocol Buffer, Multi-threading PostgreSQL, Docker)

- Full Stack UPS Web Application that supports order delivery/tracking/searching/details
- Built frontend with Django and HTML, CSS, Javascript, database with PostgreSQL, backend server with Python
- Built a multi-threaded daemon server using Python that exchanges information with amazon and the world through Google Protocol Buffer message defined in IG with Amazon Parteners.
- Add many extra features like Driver Portal, Email Notification, delivery timeline display
- Successfully handled 1000+ concurrent order delivery without latency

## HTTP Caching Proxy(C/C++,multi-threading,Docker)

- •Developed a HTTP caching proxy using Boost C++ to support GET, POST, and CONNECT requests.
- •Implemented multi-threading support for handling 10,000+ concurrent users with latency<0.1 second.
- •Conducted thorough testing for reliability and efficiency with netcat, curl and web browser.

#### RISC Strategy Game(JavaFX,Java,PostgreSQL,Junit,Mockito,Robot, MVC,CI/CD,Socket Programming,Docker)

- •Developed a RISC Strategy Game using JavaFX for the front-end and Java for the back-end.
- Implemented gameplay features like move, upgrade, and attack to conquer territories, fog functionality for hiding movements and accessing past activity history.
- Stored the Game State in PostgreSQL database permanently to make it easier for user to return to the game with previous data and state even when the server is shut down and restart.
- •Established CI/CD pipelines in GitLab, arranged daily team meetings, performed code reviews, drew UML diagrams
- •Supported multiple users playing different games and allowing game switching and utilized Robot, JUnit, and Mockito for unit testing, achieved over 80% test coverage.

# Skills

Java   C/C++   Python   Javascript   React   Ruby on Rails   Vue   Django   AWS   Cloud Computing   MySQL
PostgreSQL   Multi-threading   JavaFX   MVC   Socket Programming   Flask   Junit   Mockito   Robot
Agile Methodology   CI/CD   Docker   Unix/Linux HTML CSS Git JQuery