

# Chen Liang

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## EDUCATION

### Carnegie Mellon University (CMU) | GPA: 3.82

Master of Information System Management

Pittsburgh, Pennsylvania, USA

August 2021 – December 2022

Course: Distributed System, Web Application Dev, Data Focused Python, Database Management, NoSQL Database.

### Beijing University of Technology (BJUT) | GPA: 3.7

Bachelor of Computer Science and Technology

Beijing, China

September 2017 – July 2021

Course: C programming, Operating System, Computer Network, Data Structure & Algorithm, NLP, Intro to AI, Java.

## SKILLS

- Programming: Java, Python, C, JavaScript, HTML, CSS, MATLAB, Machine Learning, Deep Learning.
- Data Skills: SQL, NOSQL(Redis, MongoDB, Cassandra, Neo4j), Python (PyTorch, Matplotlib, Pandas, Gson).
- Framework & Tools: Django, TomEE, PowerBI, Tableau, AWS EC2, Heroku, Postgre, Git, REST, RMI.

## PROFESSIONAL EXPERIENCE

### Aerospace Information Research Institute, Chinese Academy of Sciences

Algorithm Engineer Intern

Beijing, China

September 2020 – November 2020

- Modified and optimized mutation strategy to solve problems about limited number of Pareto front solutions for MOEA-DRA algorithm, which finally increased by 5%.
- Normalized data using Pandas in Python and modified algorithm constrain to optimize distribution of generated Pareto front, visualized data using Matplotlib as 3 different kinds of charts.

### BAIC Rocar Automotive Service & Trade Co., Ltd., Beijing Automotive Group

Information Management Engineer Intern

Beijing, China

June 2020 – August 2020

- Clarified data visualization and BI requirements of 3 different cases, made 2 disposable prototypes, and discussed data cleaning technical barriers and multi-interface design solutions with 5 different suppliers.
- Negotiated with 3 suppliers about our BI platforms and data centers and declared technical points about dealing with complicated data interface using SQL or NOSQL databases, took notes using Microsoft Office.

## ACADEMIC PROJECTS

### Social Media Website

Solo Project

November 2021 – January 2022

- Created the 6 template HTML files as views, and implemented database models backend with Django framework in Python, designed 8 functions as controllers, which are deployed on AWS EC2.
- Designed 6 main functions which are login, logout, registration, global stream, follower system, profile display, and refreshed data from Json using AJAX and jQuery to realize dynamic content display in stream pages.

### “Cybercop” Cases Management Tool

Solo Project

August 2021 – November 2021

- Implemented 4 different design patterns including Factory Method, Builder, Command, Template Method, used TomEE( Apache + Tomcat) to implement functions in Java servlet, and scrape data using python in models.
- Developed UI interface using JavaFX, which enabled users easily to browse cases and edit cases with smooth user experience.

### Breast Ultrasound Lesion Detection System)

Research Assistant

March 2021 – July 2021

- Trained deep learning model built with Pytorch using data set of 1000 pictures in RetinaNet(ResNet50), improved detection result of different results from different models with different parameters.
- Merged Attention Enhancing module (SENet) into residual layer of RetinaNet, and got 5% increase in detection accuracy, which achieved 85.7% finally.

### Campus Online Forum Mini-App

Team Member

January 2021 – February 2021

- Collaborated with 4 group members on development of front-end of forum using JavaScript, HTML, CSS, and imported Third-party APIs such as Baidu Map, Baidu Search to realize related functions.
- Implemented WeChat cloud server as the backend, WeChat cloud database as storage of the Mini-App and realized 7 different functions in the forum which are post/edit/like/comment/delete/sort/search blogs.