PINGCHUAN(Molly) MA

College Park, MD | acc.mapch@gmail.com | 385-722-7862

PROFESSIONAL EXPERIENCE

Federal Government U.S. Army Contract   *Research Software Developer*   On-going
- Assisted in developing a red team vetting tool to provide a consistent review process for untrusted commercial and open source binaries and source code.
- Built a network intrusion detector, a predictive deep learning model capable of distinguishing between intrusions and normal connections based on a wide variety of intrusions simulated in a military network environment.
- Built Java Maven project to implement Squirrel foundation FSM state machine
- Built Vulnerability State Machines with lambda functions using Python on AWS.
- Built web application to create a dashboard for anomaly analysis and visualization.

Bowie State University, MD   *Graduate Assistant*   2019.8 – 2020.12
- Work as a research assistant in Computer Science Department.
- Explored on AWS education and enable faculties and students to move their research or teaching endeavors to the cloud.
- Installed Hyperledger Iroha blockchain system on AWS by creating Docker network and started Iroha data base.
- Helped with event organizations and management, Cyber Day event and workshops.

Beaumont Software, Inc., Beijing   *Software Engineer Intern*   2018.5 – 2018.8
- Assisted in the design and development of user information solutions and Internet applications for a medical company using Java.
- Provided user requirements analysis, design and programming support for enhancement of a widely used web application.
- Wrote test cases which is designated as over 85% code coverage and troubleshoot interface and database issue using JUnit.
- Introduced methodologies and best practices that enhanced product definition, release processes and customization of applications to user needs.

SKILLS

- **Programming and Frameworks:** Java, C++, Python, JavaScript, SQL, PowerShell, GO, Microsoft .NET, Maven, Junit, Jupyter Notebooks, Pandas, NumPy, and Scikit-learn, HTML, CSS, JSON, Angular JS, React, J2EE, Kubernetes, Swift, MapReduce, Bootstrap, Express, Matplotlib, NLTK
- **IDE：** Eclipse, Visual Studio, Spyder, jGRASP
- **Database:** MySQL, Postgres SQL, MongoDB, Oracle Database
- **Operating System:** Windows, Linux/Unix, Mac OS
- **Version control:** Git, SVN
- Debugging, Agile documentation, problem solving, critical thinking, leadership.

PROJECTS

Tiny Ecommerce Site - Full Stack Project   Sep 2018
- Designed and built a shopping website using frameworks and technologies, including JavaScript, Bootstrap, MongoDB, and React for frontend development.

- Maintained and persisted all public product data in Amazon S3 and implemented shopping cart feature which kept cart data in browser's local storage.
- Implemented user authentication and third-party login/registration features by Facebook, Google and Twitter, read/write user data to PostgreSQL database.
- Improved the client-side performance by applying asynchronous calls and lazy loading all thumbnail images.

Inventory Management System
- Developed a transaction processing and management system based on OOD principles to perform inventory tasks and serve customers using shopping cart.
- Using MySQL maintained a proper variety of required items, increase inventory turnover, reduce and maintain optimize inventory and safety stock levels, obtain low raw material prices, reduce storage cost, reduce insurance cost, reduce taxes.

AI chess game Gogo
- Designed and implemented Gogo in three different levels.
- Used reinforcement training algorithm trained the AI agent.
- Created an IOS App of Gogo.

EDUCATION

BOWIE STATE UNIVERSITY(HBCU), MD, U.S.	Dec. 2020
M.S. in Computer Science	GPA: 4.0/4.0
CHINESE ACADEMY OF SCIENCES, China	June 2012
M.S. in Management Science &Engineering	GPA: 3.7/4.0
XI'AN UNIVERSITY OF SCIENCE AND TECHNOLOGY, China	June 2008
B.S. in Accounting	GPA: 3.6/4.0

Courses Completed:
Data Structure and Algorithms, Object Paradigm, Operating System, Distributed System, Computer Organization and Architecture, Database Design, Machine Learning, Artificial Intelligence, Cyber Security, Pattern Recognition, Data *Science.*