Bolong Tang

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About me:

1. As a highly adaptable and innovative individual, I am currently pursuing a Master's degree in Communication Systems at KTH Royal Institute of Technology.
2. My skillset includes programming proficiency in Python, Java, and C++, along with a strong foundation in electronics and computer networks encompassing TCP/IP, OSPF, BGP, among others.
3. I possess front-end and back-end development expertise and have hands-on experience in utilizing React, HTML, CSS, JavaScript, SpringBoot, and databases.
4. Whether operating as a team member or an individual contributor, I maintain an unwavering focus and consistently deliver exceptional work of the highest standard.

WORK EXPERIENCE

01/06/2022 – 13/08/2022 Jiangmen, China

FULL STACK SOFTWARE DEVELOPER TIWINOK LINEAR GUIDE TECHNOLOGY CO.

1. Employed as a full stack software engineer, responsible for the linear guides' accuracy detection software individually, completed it as a full-featured software from front-end to back-end (VB.net + Python + MySQL) in one month.
2. Involved in equipment and component selection, and the development of a new standard for guide accuracy testing for the detector.
3. Participation in the electrical cabling of the linear guide accuracy tester.
4. Involved in the development of PLC automation programs for guides drilling machines.

EDUCATION AND TRAINING

24/08/2022 – CURRENT Stockholm, Sweden

MASTER OF SCIENCE IN COMMUNICATION SYSTEMS KTH Royal Institute of Technology

Address Brinellvägen 8, Stockholm, Stockholm, Sweden | **Website** www.kth.se

23/08/2018 – 01/07/2022 Beijing, China

BACHELOR OF SCIENCE IN AUTOMATION Beijing Institute of Technology

Address No.5 Zhongguancun South Street, Haidian District, Beijing, China | **Website** www.bit.edu.cn |

Field of study Automation |

Thesis Design and Implementation of a Deep Learning Based Aortic Abnormality Classification System

DIGITAL SKILLS

C | C++ | Python | MySQL | Linux | Java | Matlab/Simunlink - Advanced | JavaScript | React | CSS | HTML | SpringBoots

ADDITIONAL INFORMATION

PROJECTS

18/01/2023 – 01/03/2023

A P2P Daily Service Web Application

1. Using React, Spring Boot, and MySQL deployed on Heroku, I together with three other teammates built a full-function web app providing a platform for daily services.
2. The platform is peer-to-peer based so that everyone could either be a customer or a service professional providing services.

05/07/2021 – 01/06/2022

MASS Communication for Constrained Devices

1. The project, conducted at North Carolina State University, USA, entailed exploring a novel concurrent communication approach for resource-constrained IoT devices to mitigate congestion and power consumption of wireless communication in these devices.
2. Using Python, I conducted research to examine the impact of phase shift on the MASS transmission and accurately determined the phase shift tolerance range of MASS communication. Moreover, I proposed a practical solution to address the transmission phase shift issue as a key requirement.
3. The project was carried out under the guidance of Prof. Khaled Harfoush.

15/06/2022 – 13/08/2022

Linear Guides Accuracy Automatic Detector Software

1. As a full-stack software engineer, my primary responsibility entailed the independent development of an entire software program that collects and processes data from potentiometers, presenting real-time data diagrams while seamlessly integrating with a newly established data management system. The software program was developed using VB.net, Python, and MySQL technologies.
2. Additionally, I was actively involved in developing a new accuracy testing standard, playing a critical role in selecting high-precision displacement sensors and hardware commissioning.
3. The newly developed accuracy tester performed remarkably well in detecting guide rail accuracy, replacing the manual detection method and significantly enhancing detection speed by 30 times. As a result, it bolstered the export of guides and chamfering machines to Switzerland.

30/09/2022 – 25/10/2022

Guaranteed UDP Protocol Design and Implementation

1. Developed and implemented the Guaranteed UDP protocol (GUDP) by encapsulating the UDP protocol, resulting in a reliable file transfer over the unstable UDP transmission channel.
2. To accomplish this, I utilized Java 19 as the primary programming tool.

25/11/2022 – 20/12/2022

An Encrypted VPN Tunnel Program

1. Developed an encrypted VPN tunnel program for instant message transmission and file transfer complying with TLS/SSL standard.
2. Based on a server-client model, setting up the session by conducting a handshake for mutual certificate authentication, secure session key exchange and anti-playback confirmation.
3. Java 19 and JCA is used as the programming tool.

20/01/2023 – CURRENT

A Cross-branch Network Security System

1. I together with teammates am building a comprehensive system to enhance the security posture of a multinational company with offices in London and Stockholm.
2. My responsibilities included configuring critical components such as the firewall (IPTables), authentication server (FreeRADIUS+MySQL database), and router firmware.
3. To ensure the efficacy of the system, I conducted rigorous testing using six virtual machines that simulated various server functions, two routers as access points, one switch, and a mobile device for two-factor authentication.
4. This project provided me with valuable experience in implementing a robust network security solution that met the needs of a global organization.