

Linke Li

919-491-9874 | lilinkekk@gmail.com | [linkedin.com/in/linke-li-kk](https://www.linkedin.com/in/linke-li-kk) | linke-kk.github.io

EDUCATION

Duke University <i>M.S. in Electrical and Computer Engineering, Software Development track</i>	Aug. 2022 – May. 2024 (Expected)
University of Glasgow (Joint University Programme with UESTC) <i>B.Eng. in Electrical and Information Engineering with Honors of the First Class</i>	Aug. 2018 – May 2022
University of Electronic Science and Technology of China (UESTC) <i>B.Eng. in Communication Engineering, GPA:3.83/4.00</i>	Aug. 2018 – May 2022

TECHNICAL SKILLS

Languages: C/C++, Python, HTML/CSS, JavaScript, Ruby, SQL, Java, Go, Verilog
Technical tools and frameworks: Django, Docker, Rails, Google Protocol Buffer, Tailwind CSS, Pytorch

PROFESSIONAL EXPERIENCE

Duke University Office of Information Technology <i>Software Development Intern</i>	Durham, US May. 2023 – Present
<ul style="list-style-type: none">Developed Duke Application Discover, a web application that summarizes status(including gem name, versions, vulnerability details and dependencies) of all application projects of Duke OIT (currently around 250) with Ruby on Rails, Postgres, Tailwind CSS and encapsulated in DockerImplemented various user-friendly web application features including json parsing, project search, resource management, and dependency visualization using HTML/CSS and JavaScript under agile environmentReduced total database query time from 400s to 93s by optimizing database schema and reading methodStrengthened security with shibboleth authentication and rack group authorization and deployed the app to OKD	
Unionbigdata Co.,LTD <i>Machine Learning Intern</i>	Chengdu, China Apr. 2022 – July. 2022
<ul style="list-style-type: none">Developed an Unfolding Super-Resolution Network enhanced by Pyramid Non-local Block with the terminal of Unionbigdata to recover the high-resolution image from a low-resolution image by using Python and PytorchProduced superior Peak Signal-to-Noise Ratio (PSNR) result under different datasets, thereby improving the efficiency of further practical applications, including pattern recognition. (e.g. tested with the vehicle parts dataset provided by the factory, under the isotropic Gaussian kernels, the improvement in average PSNR is 1.08dB)Created a user guide of PNB-USRNet which makes training and testing of the network accessible to engineers	

PROJECTS

Mini-Amazon (Google Protocol Buffer, PostgreSQL, Multi-Thread)	Feb. 2023 - Mar. 2023
<ul style="list-style-type: none">Developed a full-stack web application modeling mini-Amazon online store system paired with warehouse and delivery system under Django. Simulated the whole process from buying products to delivering packagesBuilt backend server with Python and concurrently handled communication among the Mini-Amazon, warehouse system, Mini-UPS system and users with Python Threadpool and Google Protocol BufferDesigned a user-friendly web page with CSS, HTML, Javascript and Bootstrap, where users can log-in, search for products, add products to shopping chart, place order and track the order	
Ride Sharing Web Application (Django, Python, PostgreSQL, Docker)	Jan. 2023 - Feb. 2023
<ul style="list-style-type: none">Utilized Django and PostgreSQL to develop a full-stack web application modeling Uber system with which users can request and manage rides as riders, view and join rides as sharers, search and confirm order as driversCreated a human-centered webpage with HTML, CSS, JavaScript and Bootstrap Library and deployed the back-end server based on docker	
Potato-tossing game (C++, TCP socket, Network)	Dec. 2022 - Jan. 2023
<ul style="list-style-type: none">Established a peer-to-peer (P2P) network for potato-tossing game in which players can play potatoes in distributed network with TCP socket APIMonitored multiple sockets simultaneously to receive incoming message using select function	
Thread-Safe Memory Allocator (C, Thread Safety, Mutex, Virtual Memory)	Nov. 2022 - Dec. 2022
<ul style="list-style-type: none">Designed a Malloc Library with first fit and best fit strategies and evaluated tradeoffsEnsured thread-safety with a locked version (pthread mutex) and a lock-free version (Thread Local Storage)	

PUBLICATIONS

Linke Li, Zhao Kang, Bo Long, Riemannian Manifold-based Multi-view Spectral Clustering, **Computer Engineering**, December 2021, DOI:10.19678/j.issn.1000-3428.0062723