Roget Kou

Software Engineer
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Publications

- **Standing on the Shoulders of Giants: AI-Driven Calibration of Localisation Technologies**
  Khan, Aftab & Farnham, Tim & Kou, Roget & Raza, Usman & Premalal, Thajanee & Stanoev, Aleksandar & Thompson, William. (2019). Standing on the Shoulders of Giants: AI-Driven Calibration of Localisation Technologies. 1-6. 10.1109/GLOBECOM38437.2019.9013500.

- **Dataset: Indoor Localization with Narrow-band, Ultra-Wideband, and Motion Capture Systems**
  Usman Raza, Aftab Khan, Roget Kou, Tim Farnham, Thajanee Premalal, Aleksandar Stanoev, and William Thompson. 2019. In Proceedings of the 2nd Workshop on Data Acquisition To Analysis (DATA'19). Association for Computing Machinery, New York, NY, USA, 34–36. DOI:https://doi.org/10.1145/3359427.3361919

- **TAILOR: Wrist Strain Monitoring Sleeve** ACM Chi Late Breaking Works 2020
  Marceli Wac, Roget Kou, Ali Unlu, Morgan Jenkinson, WeiChen Lin, and Anne Roudaut. 2020. TAILOR: A Wearable Sleeve for Monitoring Repetitive Strain Injuries. In Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems (CHI EA '20). Association for Computing Machinery, New York, NY, USA, 1–8. DOI:https://doi.org/10.1145/3334480.3383100

Experience

Software Engineer @ Active Silicon March 2022 - Present

- Software Engineer at Active Silicon working on embedded Linux systems for industrial vision systems.

Research Engineer @ Toshiba Research Europe February 2019 - April 2021

- Research engineer at Toshiba, with research focused around wireless communications, embedded systems and localisation. Here I have worked on various projects mostly to do with Ultra-Wideband radio technology and protocol design. I have significant experience with driver writing and porting development boards and micro-controllers to custom systems.

Intern/Teaching Assistant at University of Bristol for Electrical and Electronic Engineering Department Summer 2017, Summer 2018

- Summer 2017:Utilised given Texas Instruments CC1350 launchpad and GPS module to produce working GPS tracker capable of real time and recording with accuracy of within a few metres. Other functionality added for tracking distance thresholds and LED alerts. This developed my TI-RTOS knowledge as well as using Code Composer Studio for Texas Instruments products.

- Summer 2017/2018: Aided in the design of new coursework for first year students. The work involved writing C code for use with Texas Instruments CC1350 Launchpad boards and constructing circuits with ultrasonic transducers to calculate time of flight. Then to adapt the work for the 1st year students and help produce lab scripts and exercises to help them work towards a working system.

Education

University of Bristol 2016 – 2020
MEng Computer Science and Electronics (Grade 2:1)
Final year thesis: Ultra-Wideband Radio in Harsh Environments
Porting the Contiki-NG embedded OS and TSCH protocol for UWB radios.

Relevant Units Taken: Networked Systems and Applications, Advanced Mobile Radio Techniques, Broadband Wireless Communications, Network Protocols and Principles, Mobile Communications, Machine Learning, Communications, Symbols Patterns and Signals, Signals and Systems, Advanced Computer Architecture

Queen Elizabeth's School, Barnet 2009 – 2016
A-Levels: Maths, Physics, Chemistry, Biology
12 GCSEs including Maths, Double Science

Other Achievements/Skills

Languages: English (Native), Mandarin (Conversational), Cantonese (Native)

Github: https://github.com/RogetK

Linux: I am proficient in using most linux distributions and have experience with Red Hat Enterprise Linux with knowledge of writing shell scripts and working with High Performance Machines ie. BlueCrystal Phase 3.

Programming and Embedded:

- Proficient in using C/C++ to program a variety of micro-controller boards and wireless radios
- Expertise with nRF52 micro-controllers and DW1000 Ultra-Wideband Radios
- Experienced with python and shell scripting.
- Familiar with a embedded operating systems such as Contiki-NG, Zephyr-RTOS, FreeRTOS.
- Experience with embedded linux development and using the yocto project.