Yuyang Huang

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Objective

Seeking a full-time job opportunity as an Software Engineer who works in any of the following fields: Server side software development, large scaled distributed system development, Linux kernel Development, or as an Site Reliability Engineer.

Working Experience

Sony **Tokyo Japan**
Linux system R&D Engineer *April 2016–Present*

- Mainly work at Base System R&D Department, Linux kernel R&D Section (around 20 people).
- Also hold additional post at AI/Robotics Business Unit, System Software Development Section (around 150 people).
- Parallel work on two main projects:
  - Design and develop secure application framework on embedded Linux for next generation IoT device and Robotics.
  - Linux kernel/Driver development and maintains for both current and next generation embedded system platform.

Education

The University of Tokyo **Tokyo Japan**
M.S. *October 2013–March 2016*
Graduate School of Information Science of Technology, major in Information and Communication Engineering

Dong Huang University **ShangHai China**
B.Eng. *September 2009–July 2013*
Department of Electrical Engineering, major in Electrical Engineering and Automation

Selected Projects

Linux kernel and system security software development. **C/C++,Python,Golang**
Linux kernel and system security software development for next generation platform. *April 2016–Present*
Techniques: Algorithm design, System design, Embedded system development, Linux Kernel development, Containerization

Height Aided PNS **C/C++,Python,Java**
A high accurate pedestrian navigation system for urban canyon environment *April 2014–March 2016*
Techniques: Algorithm design, Optimization, Self Localization, Data Visualization, GNSS, WiFi Localization, Android Programming
(This project is my master thesis. The output of this project was sold to a well know company for around 2 million JPY)

vflipnum **C/C++**
A stochastic local search algorithm based SAT solver *August 2012–May 2013*
Techniques: Algorithm design, Satisfiability.
(This project is my undergraduate thesis. The output of this project was published in an international confluence about SAT problem.)

Cow Evaluator **C/C++**
A cow health assessment system using Kinect. *February 2012– July 2012*
Techniques: OpenCV, Kinect
(This project wins the National 3rd Price of Intel Cup Embedded System Design Contest, July 2012)

Skills

- Extensive experience in algorithm design, analysis and implementation in various fields: Mathematical optimization, Self-Localization, Operating system, Embedded system programming and Computer system security.
- Extensive experience in system design for embedded platform.
- Strong background in Linux Kernel/Driver development, Linux system programming.
- Deeply understand the Linux security and resource management mechanism: Discretionary Access Control, Capabilities, Namespace, Seccomp, Cgroups.
- In-depth experience and knowledge of large scale software development (Linux Kernel).
- In-depth experience and knowledge of container software: runC and Docker.
- Good experience in Linux system administration.
- Good knowledge and experience in networking such as TCP/UDP/IP.
- IDE: Visual studio, Xcode, Android studio, Intellij, Pycharm, Eclipse
- Editor: Vim, Visual Studio Code, Emacs.
- Programming language: C/C++(5 years experience), Python(5 years experience), Shell (3 years experience), Java (2 years experience), Assembly (2 years experience), Golang(1 year experience), Ruby/Rails (0.5 year experience), Haskell (0.3 year experience), Javascript (0.3 year experience).

Awards

Excellent Bachelor Thesis Award *July 2013*
Undergraduate Thesis Title: Improving stochastic local search algorithm for solving Boolean Satisfiability Problem with new heuristic approach

National 3rd Price of Intel Cup Embedded System Design Contest *July 2012*

Publications

Y. Huang, L.-T. Hsu, Y. Gu, and S. Kamijo, "Gnss Correction using Altitude Map and Its Integration with Pedestrian Dead Reckoning(under 1st review)," *IEICE TRANSACTIONS on Fundamentals of Electronics, Communications and Computer Sciences*, 2017.

Y. Huang, L.-T. Hsu, Y. Gu, H. Wang, and S. Kamijo, "Database Calibration for Outdoor Wi-Fi Positioning System," *IEICE TRANSACTIONS on Fundamentals of Electronics, Communications and Computer Sciences*, vol. 99, no. 9, pp. 1683–1690, 2016.

L.-T. Hsu, Y. Gu, Y. Huang, and S. Kamijo, "Urban pedestrian navigation using smartphone-based dead reckoning and 3-D map-aided GNSS," *IEEE Sensors Journal*, vol. 16, no. 5, pp. 1281–1293, 2016.

J. C. Y.Y Huang, "vflipnum: A Local Search with Variable Flipping Frequency Heuristics for SAT," *Proceedings of SAT Competition 2013 : Solver and Benchmark Descriptions*, July 2013.