Chen-Han Hsiao (Stanley)

AUTOBIOGRAPHY

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During 3 years as a software engineer with Algorithm Section in Micro-star International CO., Ltd., one of the world's largest ODM(Original Design Manufacturer), my main responsibilities were to develop consumer electronics products especially autonomous vacuum robot. My works included linux-based application development on arm processor and implementation of artificial intelligence of robots. I also develop and maintain cross-platform software suite for field tests in real environments. With these software suite, product quality and reliability is ensured. In addition, I built software architecture for next-generation product and made the vacuum robot being capable of localizing and navigating accurately in indoor environment. Also, I host seminars in department to encourage everyone to share their knowledge. Tools such as Git (with distributed version control flow) and Redmine (project management software) are introduced by me in seminars and further adopted in our team. These tools not only help engineers but also help project managers and our customers to track progress of running projects.

In my two-year graduate school period before joining MSI, research interest included Robot Perception, Machine Learning and Digital Image Processing. My thesis focus on localization and mapping in dynamic environments for autonomous robot with a monocular camera. With new mathematical model and filtering approach I proposed, performance of the localization and mapping is enhanced in both simulation and real environment. The results were accepted in IEEE ICRA Conference and published in 2011.

I join open source and open data communities and make contributions. I've attend hackathon of g0v community which advocates transparency of information. In the hackathon event, I contribute to one charity project on finding lost pet. I believe information technology would change people's lives. "Hacker News" is a must-read website in my leisure time. A bunch of inspiring articles show up in the top list everyday. Great entrepreneurs and programmers share cool ideas or products on the platform. Those articles influence me a lot so I set my next goal: build the next influential product and make a difference.

Specialties: Embedded software development, System programming, Robot Perception and Learning, Algorithm Design, Artificial Intelligence, Probabilistic Model.