Chung-Hao Huang

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Feb. 1. 1985

Nationality: Taiwan(R.O.C)

KEY QUALIFICATIONS

- PhD in Graduate Institute of Electronics Engineering, National Taiwan University
- PhD major in software verification with formal method
- 2 years designing and implementing Android APP in an AR startup company

EDUCATION

- **PhD in Graduate Institute of Electronics Engineering**

  National Taiwan University

  2008.Sep - 2016.Jun
- **Bachelor in Electronics Engineering**

  National Taiwan University

  2003.Sep - 2007.Jun

MAJOR GRADUATE SCHOOL PROJECTS

- Temporal Logic and Game Theory
  - Use game theory concept to measure software resilience against dense errors

    [IEEE Trans. SW 2016] A Game-Theoretic Foundation for the Maximum Software Resilience against Dense Errors

    https://github.com/yyergg/Resil
  - Extend CTL(Computation Tree Logic) and ATL(Alternating-time Temporal Logic) with strategy interaction semantic

    [ACM Toplas 2015] An Extension of ATL with Strategy Interaction

    https://github.com/yyergg/TCL
  - Mining temporal specification of anomaly user pattern
- SW Testing on Android APPs
  - Auto test case generating tool with GUI object identification
  - Tool to extract specific behavior which causes anomalies by applying data mining in test results
  - Black box memory leakage and code coverage detection with deassamble technique

PUBLICATIONS

- Journal
  - [IEEE Trans. SW 2016] A Game-Theoretic Foundation for the Maximum Software Resilience against Dense Errors
  - [ACM Toplas 2015] An Extension of ATL with Strategy Interaction
- Conference
  - [CAV 2014] G4LTL-ST: Automatic Generation of PLC Programs
  - [TACAS 2013] Model-Checking Iterated Games
  - [APLAS 2013] Temporal Specification Mining for Anomaly Analysis
  - [GandALF 2012] Rapid Recovery for Systems with Scarce Faults
  - [CONCUR 2011] A Temporal Logic for the Interaction of Strategies
  - [FASE 2011] Evolving a Test Oracle in Black-Box Testing

TECHNICAL SKILLS

- Experience in NP-complete, PSPACE-complete, EXPTIME-complete algorithm implementation with C, C++ or python
- X86 architecture and UEFI bios basic concept
- Experience in parser generator (lex, yacc, ply, ANTLR, pyparsing) experience while implementing building tool chain
- Android APP implementation
- LAMP or Django backend server and REST API

WORK EXPERIENCE

2015.Mar – 2017.Jul, ChaseWind Co. Ltd, Co-founder & CTO

- ChaseWind is a startup company which is building HUD smart glasses and corresponding cloud service for cyclist
  - Product Intro: https://youtu.be/1CR__QuYoKE
  - LinkedIn: https://www.linkedin.com/company-beta/11061863/
  - Crunchbase: https://www.crunchbase.com/organization/chasewind
- Defined the RESTful API of the server and the SW spec of the Android APP on the phone and glasses and implemented the Android APP
- Intellectual property and financial plan
- Recognitions during in ChaseWind:
  - 2017 Plug and Play, Sunnyvale   - International program
  - 2017 MWC, Barcelona   - Exhibitor

- ■ 2016 Bluetooth SIG Breakthrough Awards   - Finalist
- ■ 2016 From Innovation to Innovation(FITI)   - Champion, $90K
- ■ 2015 Mobile Heroes Communication   - Champion, $10k

2016.Mar – 2016.Sep, Jorjin Technologies Inc., SW Engineer
- Survey the application requirements of AR glasses from different verticals such as medical, fire fighters, security guards, pipeline workers, etc.
- Once the SW spec had been finalized, implement demo APPs to demonstrate the capability of HW platform

2014.Feb – 2016.Feb, Intel PC BIOS team, Intern
- Implement tools in the BIOS building tool chain and integrate the tool into CI system to improve the quality of code. Most of the tools are parser-based python script which can fix the code formatting, verify memory alignment, check binary compatible between versions.
- Maintain BIOS code, debug issues and implement POC of new features

2011.Jun – 2012.Jun, Intel Innovation center(embedded), Intern
- Review the IP in the production code
- Maintain the server of remote testing platform
- Design automatic test cases for digital signage or POS printing system

Contractor
- Aquarium Light(Android):
    - ■ Control the light to turn on/off and change the color through self-defined UDP protocol
    - ■ 24hr scheduling and fast-forward simulation
    - ■ Error handling of protocol
    - ■ Firmware Over-the-Air(FOTA)
- Attendance Management System(Android): Basic attendance management Android APP with Sqlite
- Hospital Information System(JAVA): Registration/Admission/Payment/Case/Medicine management system in Java Hibernate framework