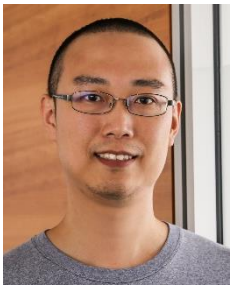
Chung-Hao Huang
01.02.1985
+49 1701870577
yyergg@gmail.com



## 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

## KEY QUALIFICATIONS

- PhD in Graduate Institute of Electronics Engineering, National Taiwan University (2017 QS World University Ranking #27)
- 1 year research experience in SW dependability(AI and Smart Contract)
- 2 years designing and implementing Android APP in an AR startup company

## TECHNICAL SKILLS

- Test case generation framework for autonomous driving
- Adversarial attack of neural network
- X86 architecture and UEFI bios basic concept
- Experience in parser generator (lex, yacc, ply, ANTLR, pyparsing)
- Android APP
- LAMP or Django backend server
- Experience in NP-complete, PSPACE-complete, EXPTIME-complete algorithm implementation with C, C++ or python

## WORK EXPERIENCE

**2017.Nov – now, fortiss GmbH, Scientist**

- fortiss GmbH is a research institute focusing on bridging industrial company and academical research. I am participating/leading following projects in fortiss.
  - Build a service broker and fleet management system to control UAVs
  - Build an NN-based perception component for adaptive cruise control (ACC) and design a testing framework for the component to meet the requirement of ISO 15622 and ISO 26262
  - Build a bounded model checking tool chain for EVM smart contracts

**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**

- Android APPs
- Hospital Information System (JAVA Hibernate): Registration/Admission/Payment/Case/Medicine management system

## MAJOR GRADUATE SCHOOL RESEARCH

- 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
- Temporal Logic and Game Theory

## PUBLICATIONS

- Journal
  - [Acta Inf. 2017] Model-Checking Iterated Games
  - [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
  - [MEMOCODE 18] Towards Dependability Metrics for Neural Networks
  - [ATVA 18] Quantitative Projection Coverage for Testing ML-enabled Autonomous Systems
  - [VSTTE 18] Verification of Binarized Neural Networks via Inter-Neuron Factoring
  - [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