

# Shang-Fu (Shawn) Hsieh

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## Objective

Software Development Internship for Summer 2018

## Education

<b>University of Southern California</b> , Los Angeles, CA	Jan. 2017 – Dec. 2018
<ul style="list-style-type: none"><li>Master of Science, Computer Science, GPA: 3.84/4.0</li><li>Courses: Web Technology, Algorithm, Artificial Intelligence, Operating System, Computer Network, Database</li></ul>	
<b>National Cheng Kung University</b> , Tainan, Taiwan	Sep. 2008 – Jul. 2010
<ul style="list-style-type: none"><li>Master of Science, Electrical Engineering, GPA: 4.0/4.0, Rank: 3/152</li><li>Phi Tau Phi Honorary Membership: Awarded to top 3, out of 152 students</li></ul>	
<b>National Chung Cheng University</b> , Chiayi, Taiwan	Sep. 2004 – Jul. 2008
<ul style="list-style-type: none"><li>Bachelor of Science, Electrical Engineering, GPA: 3.48/4.0, Last-60 GPA: 4.0/4.0</li><li>Two Presidential Awards (2007 and 2008): Awarded to top 2, out of 40 students</li></ul>	

## Technical Skills

Programming Languages	Database Technologies	Web Technologies	Applications
Java, C++, C, Python	PostgreSQL, MySQL	HTML, CSS, JavaScript	Google Cloud, AWS

## Projects

<b>Inference Engine</b> : finding answer for queries from a knowledge base (Language: Python)	Dec. 2017
<ul style="list-style-type: none"><li>Using First-order logic and Resolution proof to assert new facts</li></ul>	
<b>The Fruit Rage</b> : finding best move in zero-sum game with limited time (Language: Java)	Oct. 2017
<ul style="list-style-type: none"><li>Optimized search time by implementing Mini-Max algorithm with Alpha-Beta pruning</li><li>Boosted searching performance by designing best-move heuristic</li><li>Beat 90% of students, reduced calculations by constrained search depth and search-tree child</li></ul>	
<b>N-Lizards Problem</b> : placing N lizards in Nursery without attacking each other (Language: Java)	Sep. 2017
<ul style="list-style-type: none"><li>Implemented uninformed search: BFS, DFS, Uniform Cost, Iterative deepening</li><li>Built informed search algorithms: A*, Hill climbing, and Simulated annealing</li><li>Achieved top 15% fastest and increased 20% N size in limited memory by minimizing redundant code</li></ul>	
<b>Weenix Operating System</b> (Language: C)	Jun. – Aug. 2017
<ul style="list-style-type: none"><li>Led a team of four, designed Weenix (instructional UNIX 6 operating system)</li><li>Created process control subsystem, virtual file subsystem, virtual memory system</li></ul>	
<b>Unix TCP/UDP Sockets</b> (Language: C)	Apr. 2017
<ul style="list-style-type: none"><li>Analyzed and established TCP and UDP sockets</li><li>Simulated Server/Client data transferring behavior in a Google Compute Engine</li></ul>	
<b>Scrabble Game</b> (Language: Java)	Apr. 2017
<ul style="list-style-type: none"><li>Developed by object-oriented design with polymorphism and inheritance and provided unit test</li></ul>	

## Professional Experience

<b>Shang-Fu Engineering Ltd.</b>	Engineer	May. 2015 – Oct. 2016
<ul style="list-style-type: none"><li>Evaluated and submitted bids for government tenders, assisted business accounting</li></ul>		
<b>Maxim Integrated (San Jose-based IC design company, NASDAQ: MXIM)</b>		May. 2012 – Mar. 2015
Associated Member of Technical Staff		
<ul style="list-style-type: none"><li>Designed and developed core modules of Power Management Integrated Circuit (PMIC) for Smart Phone</li><li>Programmed in Linux shell scripts for unit test</li><li>Collaborated with top smart-phone companies: Apple, NVIDIA, Intel, Samsung, Huawei, Xiaomi</li></ul>		
<b>Taiwan Army</b>	Corporal	Jan. – Dec. 2011
<ul style="list-style-type: none"><li>Led a team of 5 and responsible for high power equipment.</li><li>Executed military exercises on schedule and under high pressure</li></ul>		