

# THOMAS A. KILBRIDE

## PGP Key Fingerprint

8CA4 8A5E 7841 FB3F FBCE  
FFEC DD2F 0AD9 7068 4D2F  
RSA4096 / 0x70684D2F

## SOCIAL

www.obnauticus.com  
github.com/obnauticus  
@kilbride.thomas

## EDUCATION

Purdue University, West Lafayette, IN  
Studied Electrical Engineering (Minor in Economics), 2015

## OBJECTIVE

Searching for full-time employment in low-level software/hardware security engineering or vulnerability research.

## EXPERIENCE

**Embeeded Security Consultant** IOActive, Inc. Spring 2016 - Present  
<https://IOActive.com/>

Worked with many different clients and vendors to help secure their products. Reverse engineered software & hardware, researched and wrote exploits for Proof-of-Concept demonstrations. Reported results independently and in small teams. Projects varied from desktop software to mechatronics.

**Embedded Systems Engineer** Radical Transport, LLC. Fall 2015 - Spring 2016  
<http://MarkCubanCompanies.com/>

Worked with a small team making hoverboards for Mark Cuban. Responsible for designing hardware to control a two-wheeled self-balancing scooter. Heavily involved with initial concept design and prototyping.

**Hardware Engineering Intern** Apple, Inc. Winter 2015 - Fall 2015  
<https://Apple.com/>

Analyzed the performance of prototype and production Mac systems. Researched and isolated performance bottlenecks and helped teams find architectural improvement areas in software, hardware and silicon.

**Developer & Co-Founder** Toucan Checkout Winter 2014 - Summer 2014  
<https://GetToucan.com/> (domain expired)

Assisted in back-end design of a mobile ordering and checkout system which allowed users to order food without waiting in line. The system tracked past user order history to increase revenue for businesses up to 12%.

## SKILLS

Programming skills in C/C++, Python, Java, Hardware Description Language, and ARM/x86 Assembly  
Reverse-engineering experience with IDA Pro, Radare2, Binary Ninja and Angr  
Knowledge of PCB Design, Electronics DFM, DC Power Supplies, PCB Layout, Signal Integrity  
SPI, I2C, UART, USB, CAN Bus, DDR, and Computer Architecture  
Circuit debugging skills with Logic Analyzers, Spectrum Analyzers, Network Analyzers and Oscilloscopes Experience in SMT soldering, PCB Routing, CNC, manual machining, and rapid prototyping

## ACHIEVEMENTS

Technical presenter on embedded security research at RSA Cybersecurity Conference in 2017  
Won "Most Technically Impressive" and "Most Likely to Succeed Startup" at MHacks Hackathon  
Selected to interview for the YCombinator S14 batch in Palo Alto, CA  
Won 1<sup>st</sup> in "Best Project Concept" in the 2014 HackADay Prize competition

## PROJECTS

Leader for IOActive security research efforts in embedded mechatronic systems  
Technical Director of BoilerMake Badge Design Team  
Co-Founder of Toucan Checkout, a mobile ordering & payment system  
Co-Founder and Project Manager of Purdue Electric Racing team