

# Matthew Vilim

mvilim@stanford.edu  
github.com/matthewvilim  
(331) 643-9982  
488 Winslow St, Apt 416  
Redwood City, CA 94063

---

## Education

### Stanford University

PhD, Electrical Eng.  
Fall 2016 – Present

- Languages, compilers, and architectures for FPGAs and reconfigurable accelerators
- Advised by Kunle Olukotun

GPA 4.07

### Stanford University

MS, Electrical Eng.  
Fall 2016 – Spring 2018

GPA 3.95

### UIUC

BS, Computer Eng.  
Fall 2012 – Winter 2015

- University Honors (top 3% of College of Engineering)
- Highest Honors

GPA 3.95

---

## Work

### NVIDIA

GPU Verification Intern  
Spring and Summer 2016  
Santa Clara, CA

- Contributed to features and performance of Volta randoms program generator
- Worked with GPU architecture team to test and verify Volta memory model

### NVIDIA

Systems Software Intern  
Summers 2014, 2015  
Santa Clara, CA

- Developer on macOS graphics drivers team
- Ported features only implemented in Windows drivers to macOS drivers

### Argonne (ANL)

Research Intern  
Summers 2012, 2013  
Lemont, IL

Developer on GREET (greet.es.anl.gov), a model of U.S. emissions

### Entrepreneur

Computer service business  
2008, 2012

- Sole proprietor of business with 180 customers, logging over 1500 hours
- Performed services such as computer setup and maintenance, network installation

---

## Research

### Prof. Kunle Olukotun

Stanford University  
Winter 2017 – Present

- Y. Zhang, A. Rucker, M. Vilim, *et al.* “Compiler-Directed Hybrid Networks for Spatial Architectures.” *ASPLOS*, 2019. (Submitted)

### Prof. Rakesh Kumar

UIUC  
Fall 2015

- Developed technique to increase Bitcoin mining profits
- M. Vilim, H. Duwe, R. Kumar, “Approximate Bitcoin Mining.” *DAC*, 2016.