

# AMIT ANIL PATANKAR

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## EDUCATION

**University of California at Berkeley**

**Major:** B.S. Electrical Engineering and Computer Science

*College of Engineering*

*Graduated: May 2015*

## EXPERIENCE

### **Google Brain (Software Engineering)**

*Palo Alto, CA, February 2017 – Present*

- Software engineer on the TensorFlow team specializing in large automation projects increasing engineering productivity
- Invented, engineered, and implemented a bot that triaged, assigned, and maintained issues on TF's GitHub repositories
- Authored introduction workflows and code for Eager mode for deep, convolutional, and recurrent neural networks
- Advocated and evangelized the TF and Keras APIs through ML conference presentations and Google startup consulting
- Release and distribution owner for TF binaries across all operating systems, platforms, hardware devices, and languages
- Created and maintained *tf-nightly*, the first reliable nightly package across all production ML open-source frameworks

### **Nest (Integration Engineering)**

*Palo Alto, CA, June 2015 – January 2017*

- Managed and maintained 10 automation server racks used for firmware pull request validation and daily automation
- Developed and maintained end-to-end pairing automation platform over BLE, WiFi, and 6LoWPAN. The platform was used across multiple cross functional teams and enabled daily post-pairing feature validation for nightly firmware builds
- Owned the automation repository, created APIs for serial logging and interfacing for serial devices, standardized the format for automation test cases, maintained Python package compatibility, and approved all new feature pull requests
- Applied Keysight Agilent meters and current measurement tools for battery life extrapolation for power modeling
- Spearheaded an automation tool for the services team that practiced service provisioning on a mock account and device

### **Apple (SEG Design Verification)**

*Cupertino, CA, May 2014 – Aug 2014*

- Tested and verified SerDes physical layer BIST and loopback tests at both unit level and full chip level for 4K display
- Full chip display and video pixel pipeline testing using interfaced transactor and dual processor communication
- Designed automated and randomized checkers for end to end data authenticity using C, System Verilog, and Perl

### **NetSpeed Systems (SoC Simulation)**

*San Jose, CA, Apr 2013 – Sept 2013*

- Designed a cycle approximate model for a network on chip (NoC) that injected and ejected packets from different interfaces, advanced the clock cycle, and created a NoC based upon added hosts and traffic patterns
- Extensively updated SoC interconnect simulator to support parallel packet injection, randomized packet generation, tx/rx rate enforcement, imported traffic profiles, and NoC layer arbitration amongst competing flows (**Patented**)

## PROJECTS

### **NFL Quarterback Draft Projection (AI/ML Engineer)**

*Berkeley, CA, June 2013 – January 2016*

- Compared logistic regression, random-forests, SVMs, and neural networks models for classifying quarterbacks as NFL-ready or busts based on college data and the teams that draft them
- Used PCA, k-fold cross validation, and TensorFlow Estimators to create a neural network model with 73% test accuracy

### **Excelerate Inc. (CEO and Founder)**

*Berkeley, CA, June 2013 – January 2016*

- Invented, designed, and provisionally patented the algorithm for the application of data analytics to help test preparation
- Offered two different products: a PC app for test prep center administrators and a individual direct consumer website
- Managed a team of engineers, accountants, and salesmen while selling products to top tier clients in the industry

### **Automatic Trash Can (Hardware Designer)**

*Berkeley, CA, Sept 2014 – Dec 2014*

- Designed and implemented a robust robotics system using Arduino Duemilanove, Bluetooth, and Xbox Kinect
- Used ROS and OpenCV to track a projectile in flight, position robot underneath the trash, and safely catch it

## TECHNOLOGY SUMMARY

**Languages:** PYTHON, SWIFT, BASH, C++, C, VERILOG, SYSTEM VERILOG, JAVA, PERL, ARM, MIPS, MATHSCRIPT

**Platforms:** TensorFlow, Keras, Firebase, Scikit-Learn, Docker, Jenkins, Xcode, GitHub, Bamboo, Eagle, Verdi, HSpice, Arduino

**Web:** Django, HTML, CSS, PHP, GCP, AWS, Heroku, JQPlot, Wordpress, Wix, Bootstrap | Visit [www.amitpatankar.com](http://www.amitpatankar.com)

## ABOUT ME

- Technical Consultant for Voyager Consulting Group at UC Berkeley for Aerospace and the NBA
- Fluent in four languages: English, Spanish, Hindi, and Marathi (*US Citizen since birth and Overseas Citizen of India*)
- Hobbies include basketball, traveling, aviation, TV shows, sports, fantasy football, foreign movies, and hacking