# PAUL CROUTHER

4110 COLLEGE MAIN ST. #17. BRYAN, TX 77801 - **WWW.PAULCROUTHER.COM** - (281) 508-5831

**EDUCATION**

**Texas A&M University, College Station, TX** — Major GPA: 3.024/4.000
**Bachelor of Science, Electrical Engineering** — Cumulative GPA: 2.824/4.000
*Graduating Fall 2016*

**RESEARCH EXPERIENCE**

**Texas A&M University, Electrical and Computer Engineering Dept.** — *Summer 2013 - Current*
*Undergraduate Research Scholar*

- Designing an autonomous driving system based on reinforcement learning with artificial neural enhancements.
- Developed software-level signal processing and machine learning platform for reduced feature set EEG classification implemented in MATLAB and C. Applications in emotion and anxiety detection.

**INDUSTRY EXPERIENCE**

**ARM, Austin, TX** — *Summer 2015*
*Intern, Architecture and Technology Group, Verification Enablement*

- Developed a combinatorial optimization test template generation tool based on the knapsack problem that ranks templates based on code coverage, test time, and uniqueness of preferences. Implementation in Python and SQL.
- Developed a tool for verification of FP64 floating-point interesting data. Implementation in C++.

**AMD, Austin, TX** — *Summer2014, Spring 2015*
*Co-op Engineer, Kaveri/Godavari Product Development Engineering*

- Completed system-level performance binning and platform JTAG register-specific debug with internal debug tools and programs.
- Performed platform-level test and fuse validation with ruby scripts by parsing markup configuration files for high priority, critical path, Kaveri and Godavari mobile and desktop OPNs.

**Computer Repair, League City, TX** — *2006-2012*
*Computer Repair and Optimization Technician*

**LANGUAGES**

Python, Assembly, Java, Verilog, C++, C, JavaScript, Ruby, Git, LaTeX, Perl, SVN, YAML, XML, Shell environments, MATLAB — *(Descending order of familiarity)*

**TOOLS AND PROGRAMS**

Visual Studio, Synopsys VCS, Cadence, JTAG, GDB, Valgrind, Octave, R, JMP, Minitab, GAMS, GitHub, optimization and machine learning (scikit-learn) libraries.

**OPERATING SYSTEMS**

Windows, Linux, Unix-like environments, OSX, iOS, Android

**RELEVANT COURSES**

*(Combined graduate and undergraduate courses)*

ECEN 489 Algorithms in Structural Bioinformatics – *Machine learning.*
CSCE 350 Computer Architecture and Organization – *ARM/MIPS.*
ECEN 449 Microprocessor System Design – *Linux/kernel drivers.*
ECEN 454 Digital Integrated Design –*Cadence, Synopsys, RTL-logic.*
CHEN 689 Nonlinear Global Optimization - *Convex analysis.*
ECEN 325 Electronics – *Analog/mixed-signal design.*

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**http://stackoverflow.com/users/5093998/pcrouther**