Eric Dinger

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Education

- Portland State University — Portland, OR
  B.S. Computer Science, GPA: 3.45 — 2012

Open Source Software Experience

- **Autonomus Vehicles Team** — Portland State University
  - Created drivers for sensors: ADXL345 (I2C accelerometer), Maxbotixs sonar sensor, Sharp IR Distance sensor, Autopilot Voltage and Current sensor.
  - Discovered a bug in the Microbuiler.eu LPC1343 I2C library that caused an malformed stop message to occur during some multi-byte reads. Worked in a team of two to fix the bug.
  - Created a simple physics simulation of a quadcopter, gyro and accelerometer in python.
  - Added an option to the make file that launches and configures GDB to connect to the remote host (Embedded microcontroller) for debugging
  - Designed and implemented the height measuring subsystem for a quadcopter using a state machine.

- **CS Capstone: Linux Kernel Tinification** — Portland State University
  - Led a capstone (final project) team of 6 students that created several patches to the Linux kernel with the aim of drastically reducing the on disk size for use in embedded environments.
  - Patches include: compile time options for core dump removal, tty removal, real time scheduler removal, and changed the command line options for the compression stub to compile time.
  - Configured KVM based virtual machines used for testing and debugging the modified kernels.
  - Created testing procedures for the modified kernels.

Work Experience

- **Mentor Graphics** — April 2011 - September 2011
  Software Engineer Intern
  - Created a high level programmable interface using TCL for analyzing SVRF rule files inside of YieldServer.
  - Modify the built-in TCL info command using C++ and wrappers in YieldServer to suppress the return of internal API namespaces.

- **FLIR** — April 2010 - September 2010
  Software Engineer Intern
  - Ran Coverity on the code base and reported the findings. Explored how to integrate the use of Coverity into the existing build process.
  - Worked with manufacturing to design a new tool to set configurations and upload software to the new model Star SAFIRE.
  - Updated WinSpectrum to use the newest codebase and added the ability to work with NTSC input and output. This required working with Blackmagic Capture Cards and updating the onscreen symbology.
  - Customer integration of updated WinSpectrum in an unusual networking environment involving serial to Ethernet converters and 9 bit serial protocols.
  - Created a proof of concept DLL that allowed Labview to communicate with the remote application protocol interface in the new Star SAFIRE.

Personal Projects

- **Android RTI Calculator** 2012
  - A small app I used to get familiar with the Android environment. RTI is easily compared number relating to suspension performance in offroad trucks, by inputting a few measurement this app gives you your RTI number.
  - Awaiting graphic design work before being offered on Google Play.

Skills

- **Languages**
  C, C++, Visual C++, Python, Java, Shell scripting, TCL
- **Technologies**
  GCC, G++, GDB, objdump, Android, I2C, Git, grep, Coverity, Windows, Boost C++Library's,

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Awards & Honors

Mecop Internship

Clubs & Activities

Portland State Aerospace Society, Viking Motorsports, Autonomous Vehicles Team, IHSTO