

Perette Barella

176 Middlesex Road • Rochester, NY 14610 • 585-317-3013 • perette@barella.org

Career Objective

I love software and I crave new, stimulating, interesting challenges—but only if the conditions are right. Unfortunately, the industry is not interested in craftsmanship, work-life balance, or product quality. Hence, I am presently exploring other industries to find a more satisfying way of earning my keep.

Qualifications

- Exceptional C, structured, and object programming skills; strong C++ skills including limited template metaprogramming experience.
- Experience including low-level device control, systems software, user applications and web development
- In software, I strive for reliability through clean, beautiful code and automated testing
- Excellent written communication skills, with a preference for honesty and frankness
- CDL Class B (straight) vehicles with air brake, passenger and school bus endorsements.
- Familiarity with electronics and test equipment (multimeters and oscilloscopes) ; good at soldering.

Portfolio

Python, mechanical and electronic assembly, 2018–present

Building custom sex appliances based on Raspberry Pi. Brainstorm features and approaches. Locate suitable cases, lay out components to fit, solder components and build wiring harnesses. Cut/drill holes and mount boards, displays, buttons and sensor/motor connections; run internal wiring and boards. Refit retail sex toys for compatibility. Construct custom containment assemblies from sheet metal. Code review software.

C, C++, and Objective C++ Developer (personal project), 2013–present

Developed music player with multiple sources and output zones for home automation or multi-listener scenarios. It is cross-platform, running on macOS, Linux, ddwrt and others. It is open-source, available at DeviousFish.com.

Communications: TCP/IP sockets, HTTP, WebSockets, TLS (OpenSSL, GnuTLS, mbedTLS, SecureTransport, LibreSSL)

Audio/media: Metadata extraction (TagLib), stream decoding (gstreamer, FFmpeg, AVFoundation), audio output (libao, SDL (libsdl))

User interface: TypeScript (typed, compiled superset of JavaScript), JQuery, HTML5, CSS, “responsive design”

Build system: Gnu Autotools (Autoconf & Automake), m4, shell

Python and Korn Shell Developer (personal project), 2018–present

Developed a simple cloud solution with the Unix “tools” philosophy. Using Subversion or Mercurial repositories as back-ends, DCloud provides practical commands for quick command-line access to data; post-commit hooks publish cloud contents to a web site to provide read-only web access. Open-source, available on DeviousFish.com

C++ Consultant (Woods Oviatt Gilman LLP), 2014

Short-term contract reviewing defendant’s software on behalf of plaintiff, searching for instances of patent infringement. Produced report identifying infringement scenarios, cross referenced with file/line of related code.

E-commerce Web Development (UniteU Technologies), 2011–2013

Adapted template web site look/feel to customer design requirements using CSS. Debugged, implemented new features to template or customized web sites using ASP.NET/C#. Maintained and utilized PowerShell script used to distribute updates to web sites.

Web Site & Software Development (various), 2004-2011

Constructed and maintained web sites (HTML/CSS); developed home automation software (C++) and interfaced with Bluetooth proximity detection software (Objective C) and music players; made enhances to music players Mserv (C), PandoraBoy (Objective C); developed spreadsheet for Medicaid gifting plans calculations (Numbers, Excel, OpenOffice); developed databases (FileMaker Pro); maintained IT infrastructure (switches, DHCP, DNS, on-site and remote backup systems, etc.).

Kernel Module and Device Driver Development (Heidelberg Digital), 2000-2003

Maintained and enhanced ethernet drivers, license manager, touch screen drivers, operating system installation software, and Berkeley LPD (RFC 1179) & Appletalk PAP STREAMS modules. Performed 32-bit to 64-bit conversion on drivers and STREAMS modules.

SGML/XML Formatter Enhancement (West Group, a/k/a Thomson Reuters), 2000

Enhanced formatting options for software which generated XML files from an Oracle database. Code was in C.

NASDAQ Trading Software Development (Automated Securities Clearance), 2000

Implemented compliance with changing Securities and Exchange Commission (SEC) SOES requirements, improved protocol handlers, and added features. Code was in C and utilized X Windows.

System Administrator, Software Developer (Sam Asher Computing), 1996-1999

Assigned to internal projects, client projects, and was outsourced to Triptar Lens Company (6 months) and Nortel Networks (3 years). Highlights included DNS and Sendmail maintenance; developing CGI web pages, a confocal microscope, directory assistance systems.

C Developer (Nortel Networks), 1996-1998

Worked on directory assistance application, including improvements to configuration parameter management, distribution of operator login status, NPA/NXX handling. Refactored process logging. Implemented dynamic process reconfiguration, reducing call issues, while refactoring away 30,000 lines of code (much of it cut-and-paste).

System Administrator (Xerox), 1995-1996

Xerox internal sales support: maintained DNS, Sendmail, backup scripts, upgrades (both hardware & software). On-call duties in case of network outages or server issues.

Programmer/Intern (Quadracolor Express, now defunct), 1993-1994

Developed job tracking and quoting software for a printing company, reusing refactored database code from Shareware Systems, which was owned by some of the same entrepreneurs.

Programmer Intern (Shareware Systems, now defunct), 1993

Turbo Pascal

Converted an existing DOS inventory application to Windows, and refactored code to eliminate redundancy and improve performance.

Bulletin Board System (personal project), 1985-1988

After learning how to communicate with the serial port by reversing-engineering printer I/O on my TRS-80, enhanced the BASIC interpreter with serial I/O, a clock, exception catching, I/O queuing. Implemented a BBS in BASIC. Project involved significant assembly (6809E), and tracing ROM code with a disassembler.

Web Portfolio

Henehan Law (2017–present)

HTML, CSS, m4

Static web site with content provided by client. Features responsive design for traditional and small screens, as well as print form (like all my sites since 2007ish). Web site: **HenehanLaw.com**

George Druziako Heating (2010–present)

HTML, CSS, m4

Simple business web site developed from discussions with client, printed literature provided by client, and research on HVAC systems. Web site: **GeorgeDruziakoHeating.com**

Non-Tech Experience

Bus Driver (First Student), 2019-present

CDL class B license with passenger and school bus endorsements, restricted from manual transmission CMVs. Deliver students to and from school in a safe and timely manner.

Driver & Package Handler (UPS), 2017-2019

Initially, a seasonal worker delivering parcels via personal vehicle. Applied organization, geography, packing, routing and driving skills to efficiently (but safely) deliver parcels to final destinations despite wintry conditions. Later reemployed as a package handler, loading and unloading trucks, sorting packages, processing delivery exceptions, acceptance auditing dangerous goods (hazmat), washing and parking package cars.

On a personal note, UPS gig convinced me there is something rotten in the software industry. Despite being a seasonal driver at first, co-workers and supervisors alike seemed to care about my well-being; they knew the work was hard, and appreciated my effort. I felt a humanity rarely seen in tech; when reemployed as a package handler, I came to appreciate the easygoing, blue-collar straightforwardness in the break room. In software, companies demand ever-more output, yet rarely appreciate the effort it takes to do it well. Tech takes all we can give while employers ignore exhaustion and pain, until eventually we break; meanwhile, coders are high-strung and worried someone else will “break their code.” UPS may have some issues, but it awoke me to the possibility of a different world and better treatment.

Real Estate Paralegal – 2020, Secretary – 2016, Receptionist – 2007 (Henehan Law)

Initially, answered and directed calls, took messages, greeted clients and typed and filed documents. Later I prepared documents, sent and received e-mail and mail, coordinated matter state, ordered instrument surveys and abstracts of title, generated closing statements, cut checks and received /deposited payments.

Inventory Auditing (RGIS Inventory), 2008-2009

Accurately counted and reported inventories for assorted companies.

Early Jobs (various), 1986-1993

Others jobs I have done include working in the dining hall at RIT (summer 1993), cashiering at a supermarket (summer 1990, reemployed spring/summer 1991), and working as a sale associate at Radio Shack (after school 1986-1988, reemployed summer 1989).

Education

- Computer Science (BS), Rochester Institute of Technology, 1988-1994
- Electronics, Oliver Wolcott Technical High School, 1984-1988
- Miscellaneous coursework, Monroe Community College, 2005-2006

Open Source Contributions

- Python ICS (Internet calendaring) libraries: add categories support (accepted), all-day handling (pending)
- Korn shell (ksh): bug fixes

- Ffmpeg (audio/video library): minor enhancements to TCP/IP transport
- Mserv (music player): track data parsing fixes and enhancements, improved track search

Community Involvement

Director and Web Developer (Rochester Kink Society, Ltd.), 2003–2015

Served on Board of Directors (2004, 2007-2008), and as an Incorporator (2007), Trustee (2009–2013), Publications coordinator (2008-2012), Facilities coordinator (2007–2008).

Managed web site (2008–2012) using HTML 4.01 (later HTML5), bringing accessibility, responsive design, improved navigation. Extensively updated content and automated calendar updates from Google Calendar via RFC 2445.

Implemented on-line member dues payment system.

Created a database & point-of-sale system to manage the annual fundraiser auction. It creates a web site, forms and a slideshow. It was in use through 2017.

Volunteer and Writer/Producer/Director (Mad River TV-13), 1990-1992

Volunteer at the local cable-access channel. Produced a skit-comedy show, some local event documentaries, and typeset text announcements on the community video bulletin board. If curious, see: *Burglary Bonanza*, *Frendz*, and *Fast Food's Biggest Mistakes*.