

RALPH LECESSI
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Monmouth Junction, NJ

TEACHING EXPERIENCE

Adjunct Professor at Middlesex County College – Edison, NJ (2016 – present)

Taught courses Introduction to Java and Object Oriented Programming in Java at the undergraduate level. Classes had between 20 and 40 students.

Computer Science Instructor at Yu's Elite Academy – Bridgewater, NJ (2016 – present)

Designed computer science program consisting of basic and advance instruction in preparation for the US Computer Olympiad, the American Computer Science League Junior, and Continental Mathematics League Computer Science competitions. Created a course to teach programming concepts to elementary school children using Scratch. Taught programming classes at the Bridgewater and Livingston locations.

Java Test Author at International Knowledge Measurement (Aug 2015 – Nov 2015)

Author of Java SE 8 test. Wrote Lambda, Stream, and Date/Time subtopics. Upgraded remaining subtopics to Java SE 8 compliancy. Responded to reviewer input and assisted during deployment phase.

Java and C++ Tutor (2014 – present)

Tutored students ranging from middle school to college graduate level in Java and C++. Helped students prepare for Java SE certification. Prepared lessons and programming exercises in pdf file format.

C++ Mentor at AT & T Corp – Piscataway, NJ (1994 – 1997)

Mentor to development team porting an application from COBAL to C++. Wrote and presented C++ tutorials, discussed design approaches, and provided one-on-one assistance to developers.

SOFTWARE DEVELOPMENT EXPERIENCE

C++	(20 yr)	Java	(13 yr)	J2EE	(3 yr)
Swing	(7 yr)	STL	(4 yr)	JDBC	(6 yr)
BOOST	(2 yr)	JNI	(5 yr)	TCP/IP	(4 yr)
MySQL	(4 yr)	Oracle	(6 yr)	PostgreSQL	(3 yr)
Data Structures	(5 yr)	SQL	(6 yr)	PL/SQL	(2 yr)
Windows	(15 yr)	Unix	(19 yr)	Perl/Shell	(10 yr)

Lead Developer at TranSendIT – Mount Laurel, NJ (2014 – present)

Lead developer for team writing C++ embedded terminal application. Responsibilities include system architecture, requirement specification, providing guidance to team members, integrating prototypes developed by subcontractors, and improving process.

Designed and developed C++ payment application embedded in Ingenico terminal incorporating EMV and NFC technology. Implemented TCP/IP socket interface with Point of Sale computers, specializing transport layer for wireless technology. Wrote C++ query library by which multiple applications could share data.

Wrote J2EE application which implemented a resource adapter to read messages from the terminal application, published them to a JMS subscription through an enterprise Java bean, and displayed them on a web page. Wrote core Java application which formatted database entries as an XML file. Wrote core Java application which created readable output from terminal debug data.

Architect and Subject Matter Expert at Lockheed Martin Corp – Newtown, PA (2002 – 2014)

Architect for satellite simulation development team. Wrote software emulator of satellite computer and source-level debugger in C. Wrote Java Swing GUI for source-level debugger using the Java Native Interface (JNI) to communicate with the debug engine. Wrote doubly-linked list algorithm and code to implement relations, sort, and store data.

Subject matter expert for team writing C++ embedded satellite application. Wrote 1553 database device driver in C++. Designed and coded object oriented C++ class hierarchy for enqueueing and dequeueing of commands on a data bus. Wrote PROM data generator in C++ using BOOST

Designed an administered PostgreSQL database which related spacecraft commands and telemetry to software mnemonics. Wrote J2EE application to interact with an Oracle database through a web browser. Wrote JUNIX, a java application providing a Unix-like shell environment. Designed and coded K-shell and awk scripts for automated verification of closed-loop test results.

Lead Developer at Lucent Technologies – Liberty Corner, NJ (1997 – 2002)

Lead developer for team writing order management application. Wrote Java transport layer of an order manager which performed operations on an Oracle database using JDBC and communicated with the application layer through the Java Native Interface. Wrote C++ reference-counting smart pointer library to remove memory leaks from code. Wrote C++ application which generated SQL statements for schema creation using STL Maps.

Software Developer at AT & T Corp – Piscataway, NJ (1994 – 1997)

Wrote C++ middleware which wrapped embedded SQL calls to the Oracle database. Wrote C++ applications and Perl scripts which created monthly reports on telephone call details. Maximized reuse through templates and operator overloading.

Software Engineer at General Electric Corp – East Windsor, NJ (1989 – 1994)

Designed and coded command uplink software in Ada embedded in a satellite onboard computers on a 1750a microprocessor. Designed and coded embedded Bootstrap flight software in 1750a assembly. Designed and coded command and telemetry 8085 firmware (assembly) embedded in an 8085 microprocessor. Wrote attitude determination software in Jovial 1750a.

Software Engineer at Grumman Corp – Melville, NY (1986 – 1989)

Designed Kalman filter algorithms in Jovial embedded in aircraft onboard computers on a 1750a microprocessor. Performed Montecarlo simulations of the navigation system in Fortran.

Engineer at Sperry Corp – Great Neck, NY (1984 – 1986)

Responsible for mathematical modeling and Kalman smoothing of submarine data in Fortran.

EDUCATION: B.S.E.E. from New York Institute of Technology GPA: 3.92/4.00

Awards and Scholarships :

2012 - LM Merit Award – for software emulator and work done on GPS project

2006 – LM Merit Award – for software emulator and contribution to the dynamics simulator

1990 – GE Merit Award – for software development on the Mars Observer project

1984 – New York Institute of Technology – for highest GPA in Engineering program

1984 – Grumman Corporation – for highest GPA in Electrical Engineering program

1980-1984 – New York Institute of Technology - Honor and Challenge Scholarship