

Roy Chancellor

Passionate problem solver | Collaborator | Self starter | Highly adaptable and coachable

Systems-minded, highly-organized software developer building upon a foundation in mechanical engineering and mathematics education and **2+ years experience in Java and C development**. Fueled by a deep desire to solve difficult problems with clean, maintainable code. Thrive in organizations that value technical excellence and offer strong mentoring.

Experience

- 2019
- Java and C Development**
 - Four semesters (16 credit-hours) **core Java object-oriented programming** emphasizing database applications
 - Developed **web-based Java banking application** with object-oriented class structures and MVC design pattern using Eclipse / Maven, JUnit tests, JavaDocs, and CRUD database functions using SQL through JDBC
 - Created a **Java vending machine management system** with an agile team using scrum by developing user stories, planning sprints, managing task backlog, and running daily stand-ups
 - Created **RESTful web services** connected to MySQL databases with a JavaScript front end and hosted on AWS Elastic Beanstalk with RDS database
 - Automated modem testing with **C programs** that reduced test time by 50%
 - Wrote numerous C programs to **simulate dynamic systems** and acquire data from electronic devices
 - Familiar technologies: Eclipse, Maven, git, GitHub, SQL, JDBC, REST, JAX-RS, AWS (EC2, Elastic Beanstalk, RDS), JUnit, Spring, SDLC, data structures

- 2015
- Mechanical Engineering Career**
1993 - 2006 and 2013 - 2015
15 years developing and improving products across the entire life cycle
Problem Solving
 - Solved shock-induced PCB cracking in a rocket controller by designing a unique stiffener that enabled flight qualification on schedule
 - Increased machine uptime by >20% by developing a program to send machine-down alerts to operators
 - Drove customer complaints for brightness variation of automotive EL lamps to zero by applying binary problem solving**Six Sigma Master Black Belt**
 - Led a corporate-level team of black belts that completed projects across the company netting > \$1M savings over 3 years
 - Solved and prevented numerous quality problems across the product life cycle that led to increased yield and happier customers**Modem Test Programmer**
 - Reduced satellite modem testing time by > 50% by writing C-language programs to automate test functions

- Employment History**
 - Manufacturing Engineer**, Schweitzer Engineering Laboratories (2013 - 2015)
 - Statistician**, Intel Corporation (2005 - 2006)
 - Six Sigma Master Black Belt**, Rogers Corporation (1999 - 2005)
 - Mechanical Engineer**, Orbital Sciences Corporation (1998 - 1999)
 - Process Engineer**, W.L. Gore and Associates (1994 - 1998)
 - Modem Test Programmer**, EF Data (1993 - 1994)

- 2006
- Mathematics Education Career**
2006 - 2013 and 2015 - 2019
11 years classroom teaching and school leadership recognized for extreme organization, strong leadership, and clear communication
 - Saved uncountable hours of teacher preparation by creating and sharing curricula spanning Algebra 1 through Calculus 2
 - Designed the annual master school schedule by solving dozens of logic

Personal Info

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Technical Skills

- Core Java:** Strong object-oriented design principles, data structures, algorithms, SQL, JDBC, RESTful web services
- C/C++:** Experience writing code to acquire & display data from A/D cards, communicate through RS-232, simulate dynamic systems, and control electronic devices
- Web services:** Familiarity with RESTful APIs in Java and Spring
- Front-end:** Working knowledge of **HTML / CSS** to create web pages and **JavaScript DOM manipulation** to create dynamic sites.
- Python:** Basic skills acquired through online course

Courses

- Java Programming I, II, and III
- Open Source Computing
- C Programming
- Regression Analysis I and II
- Design of Experiments I and II
- Theory of Statistics I and II
- Introduction to Numerical Methods
- Mechatronics (embedded control)

- conflicts and validating with VBA code before deployment
- Mentored math teachers, including one who became a master teacher

Employment History

- **Master Teacher of Mathematics** , Great Hearts Academies (2010 - 2013 and 2015 - 2019)
- **Mathematics Teacher** , Great Hearts Academies (2008 - 2010)
- **Mathematics Teacher** , Scottsdale Unified School District (2006 - 2008)

Education

2019	<p>Certificate in Java Programming, Grand Canyon University</p> <ul style="list-style-type: none">• 16-credit hours of core Java language and object-oriented principles• Frameworks and tool exposure includes Eclipse, Maven, JDBC, Hibernate / JPA, SQL, AWS, REST, Spring, JUnit, HTML, CSS, JavaScript, React, git, GitHub• Immersion in the full software development life cycle (SDLC) using agile scrum methodology
2004	<p>Graduate Certificate in Statistics, Rochester Institute of Technology</p> <ul style="list-style-type: none">• Developed theoretical and practical skills in regression analysis and modeling, time series and forecasting, product reliability, and design of experiments
1993	<p>M.S. Mechanical Engineering, Texas A&M University</p> <ul style="list-style-type: none">• Thesis: <i>Parameter Identification Using Nonlinear Dynamics and Chaos</i> (article published in the <i>ASME Journal of Vibration and Acoustics</i>, July 1996)• Wrote thousands of lines of C code that simulated dynamic systems, acquired data from electronic devices, processed data using FFT, and graphically displayed data• Co-created a micro controller-based active-damping system for a 1/4 car suspension by writing embedded C code that implemented PID control
1991	<p>B.S.E. Mechanical Engineering, Arizona State University</p> <p>Relevant courses: Introduction to C Programming, Numerical Analysis, Control Systems Analysis</p>