Roy Chancellor

Problem solver | Systems thinker | Self starter | Highly coachable and always learning

Systems-minded, highly-organized software developer building upon a foundation in mechanical engineering and mathematics education and **3+ years experience in Java and C**. Fueled by a deep desire to solve difficult problems with code that is clean, maintainable, and customer-focused. Thrive when working on lean, fast teams passionately pursuing excellence.

Experience

2019

Java and C Development

- Four semesters (16 credit-hours) **core Java object-oriented programming** emphasizing database applications (Sept 2019 expected)
- Developed **Java banking application** with object-oriented class structures and MVC design pattern using Eclipse / Maven, including 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
- 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, Hibernate, REST, AWS, Spring, JUnit, SDLC, data structures, algorithms, encryption

2015

Mechanical and Manufacturing Engineering

1993 - 2006 and 2013 - 2015

15 years 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 Laboratory (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 Educator

2006 - 2013 and 2015 - 2019

11 years classroom teaching and school leadership

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

Personal Info

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Portfolio Site
roychancellor.me

GitHub
github.com/roychancellor

LinkedIn
linkedin.com/in/roychancellor

Technical Skills

Core Java: Skilled at writing object-oriented code that is clean and maintainable

C/C++: Wrote code to acquire & display data from A/D cards, communicate through RS-232, simulate dynamic systems, and control electronic devices

Front-end: Able to use **HTML** and **CSS** to create web pages; basic proficiency in **JavaScript** to create dynamic sites.

Python: Basic skills acquired through online course

Data analysis: Skilled at JMP and Minitab to analyze complex data sets across a variety of disciplines

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)

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 **Certificate in Java Programming**, Grand Canyon University

- 16-credit hours of **core Java language** and **object-oriented** principles
- Frameworks and tool exposure includes Eclipse, Maven, JDBC, SQL, AWS, REST, Spring, HTML, CSS, JavaScript, React, git, GitHub
- Immersion in the full software development life cycle (SDLC) using agile scrum methodology

2004 **Graduate Certificate in Statistics**, Rochester Institute of Technology

- Developed theoretical and practical skills in regression analysis and modeling, time series and forecasting, product reliability, and design of experiments

1993 **M.S. Mechanical Engineering**, Texas A&M University

- **Thesis**: *Parameter Identification Using Nonlinear Dynamics and Chaos* (article published in the *ASME Journal of Vibration and Acoustics,* 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 **B.S.E. Mechanical Engineering**, Arizona State University

Relevant courses: Introduction to C Programming, Numerical Analysis, Control Systems Analysis