

JONATHAN M CLARK

Data Science • Software Engineering • Python & SQL • Mathematics • Aviation • Chemistry

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SUMMARY

I am engineering a career pivot into the space industry. I have programming skills and experience with full-stack software development, web content management, technical document writing, data science/analytics, and database management. My educational background is in chemistry. I completed the IBM Data Science Professional Certificate course. I am especially interested in developing deep technical expertise in applied math, data analytics, software engineering, and GNC Engineering (Guidance, Navigation, and Control).

I love solving complex problems and understanding how things work at the fundamental level and in the big picture. I have a strong affinity for building high-quality, high-performance, robust, resilient, well-integrated systems that operate smoothly. I am especially effective at creating order in chaotic systems and being a stable, reliable pillar of strength for my team. I have a healthy appreciation for the mission-critical reliability of safety systems (more than a decade of experience with parachute manufacturing, packing, and use), direct exposure to the world of aviation (private pilot certification), and a long-standing history of valuing responsibility, integrity, quality, and engineering excellence.

I'm an eloquent, competent, and charismatic leader with more than a decade of experience bridging gaps between teams to overcome obstacles, navigate challenges, and deliver results. I am conscientious, industrious, and orderly. I have strengths in operations, project, and contingency management and experience in training, mentoring, and coaching. I'm an innovative problem solver who loves to learn, explore, and discover new things. I bring a positive, optimistic attitude and enjoy inspiring others to pursue greatness. I seek an entry point to the space industry, a team with a mission to join, and a dynamic, productive work environment to accelerate my movement forward.

SKILLS

Data Science/Analytics, Software Engineering, and Technical Writing Skills

- **Data Science:** Data infrastructure strategy and project design, database admin (MySQL, IBM Db2), report writing, and communication of results
- **Data Analytics:** Data analysis, data visualizations, basic machine learning models, data cleaning, dashboards, Microsoft Excel, JupyterLab, etc.
- **Python Programming:** Data types/structures, variables, operators, control structures, functions, classes, modules/packages/libraries
- **Libraries:** NumPy, Pandas, Matplotlib, Seaborn, Folium, Plotly, Scikit-learn, Flask, Pygame, BeautifulSoup, MPLFinance, math, csv, json, requests
- **SQL (Structured Query Language):** SQL query writing (DDL, DML, DQL, DCL, TCL), table joins, views, stored procedures, ACID transactions, etc.
- **Full-Stack Software Engineering:** HTML, CSS, JavaScript, PHP, SQL, Python, SVG, cPanel, simple API development, and a small amount of C++
- **Technical Aptitude:** Ability to learn, understand, simplify, communicate, and apply complex technical concepts in real world scenarios
- **Technical Document Writing:** Reports, manuals (policy, procedure, technical, etc.), SOPs, one-sheet summaries, posters, flyers, and newsletters

Math and Science

- **Mathematics:** Geometry, Algebra, Trigonometry, Calculus, Linear Algebra, some Statistics, and eager to learn more! Note: I aced calculus.
- **Physics and GNC Engineering Study Plan:** Physics, Mechanics, Orbital Mechanics, Flight/Attitude Dynamics, and Navigation Filter Design
- **Chemistry Coursework:** General Chemistry, Organic Chemistry, Biochemistry, Physical/Inorganic Chemistry, Analytical Chemistry, Spectroscopy
- **Laboratory Skills:** Handling chemicals safely and PPE, titration, standard solutions, massing samples, notebook management, running experiments
- **Spectroscopy:** NMR (500/300 MHz), FTIR, AA, UV/Vis, GC-MS, HPLC-MS, SEM, and spectrofluorimetry

Trade Skills

- **Parachute Tech and Flight Suits:** Precision industrial sewing, harness sewing, packing, manufacturing, assembly, repairs, maintenance
- **IT Hardware:** Organizing network cabling, installing devices in server racks, media system troubleshooting, photo and video cameras
- **Electronics:** Exposure to soldering, electronic components (resistors, capacitors, LEDs, PCBs), multimeter use, basic electrical circuits
- **Shop Tools:** Hammer, wrench, drill, drill-press, grinder, table saw, band saw, chainsaw, arc welder (stick), soldering tools, vice, small forge
- **Auto Mechanic Skills:** Oil changes, tire rotations, clutch replacement, timing belt replacements, head gasket replacement, electrical system
- **Heavy Equipment Operator:** Farm tractor, bulldozer, crawler, trackhoe excavator, backhoe, roto-tiller, small aviation tug

Soft Skills

- **Interpersonal:** Ability to connect and collaborate with others, work on teams, resolve conflicts, and manage up/down the chain of command
- **Verbal Aptitudes:** Articulate, great 'radio voice,' excellent listener, and high-quality phone communication skills
- **Communication:** Able to effectively convey ideas and explain concepts to technical and non-technical audiences
- **Positive Attitude:** Upbeat, encouraging, supportive team player, friendly, animated, energetic, and confident
- **Financial Integrity:** Transacted, handled, and interacted with millions of dollars worth of experiences and resolved financial issues with due care
- **Safety Conscious:** Chemistry/physics laboratory environments, aviation pilot-in-command, and life-saving, emergency parachute technology

Management and Leadership

- **Management:** Highly organized, decisive, reliable, with strengths in operations, project, and contingency management
- **Leadership:** Inspirational, even-keeled team leader skilled in organizing, training, mentoring, and focusing efforts toward desired targets
- **Strategic Planning:** Strong aptitude for understanding, developing, and translating the mission/vision into key objectives and actionable steps
- **Tactical Action:** Excellent ability to prioritize and manage time sensitive tasks, take action, lean into it, and get results ('We move forward')
- **Process and Program Development:** Experienced developing process and program elements for improved system performance

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EDUCATION & CERTIFICATION

- **IBM Data Science Professional Certificate** | Coursera | January 2023 | Capstone Project - jonathanmclark.com/datascience/capstone/
- **Bachelor of Science, Chemistry** (Minor: Spanish) | Western Washington University | Bellingham, WA | March 2010
- **Associate of Science, Chemistry** (Dean's list, Phi Theta Kappa, High Honors) | Everett Community College | Everett, WA | June 2007
- **Private Pilot Certification (ASEL - Airplane Single Engine Land)** | Federal Aviation Administration | April 2017
- **USPA Licensed Skydiver** | United States Parachute Association | A-License June 2008 | C-License April 2010
- **Senior Parachute Rigger Certification (Back and Seat Type Ratings)** | Federal Aviation Administration | May 2008

EXPERIENCE

Assistant General Manager / Shift Supervisor / Customer Service Representative

iFLY Seattle Indoor Skydiving | Tukwila, WA | March 2013 - August 2022 | ~9.5 yrs. (*Note the overlap/concurrency with PPI)

Technical Support

- Developed a software scheduling tool, the 'Whiteboard,' to visualize daily operations, flag issues, and prevent hundreds of scheduling conflicts
- Facilitated data capture and processing to provide flight instructor performance metrics to the leadership team
- Troubleshooted the media system involving stills/video cameras, 2-minute delay monitor, media file labeling, and server rack/network hardware
- Developed mastery on and held system admin access to point-of-sale, report manager, and systems manager computer programs
- Supported the local team as the 'go-to' technical expert in house for many software systems, projects, programs, rollouts, and procedures

Technical Writing

- Produced an instructional manual on a new point-of-sale system for quicker training of new team members for the opening of iFLY Calgary
- Wrote SOPs, how-to guides, one-sheet references, and clear summaries for programs and events leading to boosted participation rates
- Assembled reference materials on the many versions of gift cards that had been offered to support seamless redemption by customers

Customer Service

- Resolved many issues faced by customers and staff involving schedules, reservations, events, gift cards, and other financial/account matters
- Blew up Helium balloons, set up party/conference rooms, put up decorations, stocked/counted retail inventory, and supported events
- Sold people on the 'dream of flight,' developed flight programs, and built long-term customer relationships to drive steady repeat business

Management and Leadership

- Managed daily operations and staffing schedules to meet business needs, enabling 100,000+ orderly, on-time customer experiences
- Developed, managed, promoted, and grew the flight training programs and related events, including indoor skydiving competitions
- Built responsive systems and facilitated internal communications in a dynamic environment to address daily last-minute operational changes
- Led local rollout of new initiatives including the successful launch of the virtual reality experience and the new human resources software
- Trained, coached, and mentored team members on point-of-sale use, taking payments, sales skills, and delivering world-class customer service
- Built a cohesive, effective, organized team that delivered exciting, novel flight experiences to hundreds of thousands of customers
- Played a core role in growing the company from startup to established; standing as a pillar of stability for a team in constant, dynamic motion

Volunteer: Newsletter Editor / Website Admin / Committee Chair / Technical Support

Puget Sound Section of the American Chemical Society | Puget Sound Region, WA | January 2013 - May 2022 | ~9.5 yrs.

- Edited, upgraded, and published "The Puget Sound Chemist" (Vol. 75-83); a respected monthly newsletter (January 2014 - May 2022)
- Managed website content to improve the communication of local section events, news, and information (January 2015 - May 2022)
- Organized events for early-career chemists as chair of the Younger Chemists Committee (January 2013 - December 2016)

Senior Parachute Rigger / Website Admin

Para-Phernalia, Inc. | Arlington, WA | June 2010 - December 2023 | ~13.5 yrs. (*Note the overlap/concurrency with iFLY)

- Manufactured, assembled, packed, maintained, and repaired high-quality, life-saving, emergency parachute systems at an advanced level
- Managed the official website, softieparachutes.com, including a full redesign and update to deliver the desired website visitor experience
- Wrote the [Ram Air Packing Supplement](#) instructional manual to communicate important, technical parachute information to professionals

Senior Parachute Rigger / Lead Parachute Packer

Skydive Snohomish, Inc. | Snohomish, WA | April 2007 - December 2010 | ~3.5 yrs.

- Led the Parachute Packing Team in providing main canopy packing services for the company and the licensed skydiver community
- Packed reserve parachute canopies and performed maintenance services, meeting federal regulations and company safety standards
- Mentored skydivers in the packing, use, and maintenance of their parachute equipment; increasing their knowledge, skill, and confidence

SELECTED HIGHLIGHTS

- **Portfolio:** Technical projects, website content management, newsletters, graphic design, photography - jonathanmclark.com/portfolio
- **Math and Science Coursework:** Graphical representation (SVG image) of formal studies - jonathanmclark.com/img/about/stem-coursework.svg
- **Data Science Website:** An experiment in entrepreneurial pursuits - clarkdatascience.com
- **Beekeeping:** I kept a small apiary of honeybees for more than a decade. There are few things tastier than pure honey on home baked bread!
- **Skydiving:** I've made more than 300 skydives including demonstration jumps at a Memorial Day picnic and at the Arlington Municipal Airport.
- **Total Solar Eclipse Flight Ops:** In 2017, as pilot-in-command, I flew an airplane through a total solar eclipse. What an experience!