John Wong

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SUMMARY OF QUALIFICATIONS

- 20+ years of broad interdisciplinary award-winning software and data experiences.
- Proven track record in modernization and optimization of business-critical legacy codebases.
- Demonstrated ability to rapidly adopt unfamiliar technologies to solve immediate engineering needs.
- An entrepreneurial and holistic view of software that spans all components and all stages of SDLC.

SKILLS

- Hands-on experience with Python, C, C++, Objective-C, Swift, Java, JavaScript, bash scripting;
 OpenMP, MPI, OpenACC, CUDA.
- RDBMS with SQL e.g. MySQL, Postgres; and NoSQL databases e.g. DynamoDB, Cassandra, MongoDB.
- Fundamental knowledge in containerization, Infrastructure-as-Code (IaC), and relevant technologies such as Docker, Kubernetes, and Terraform.
- Cloud computing experience with various AWS services: EC2, S3, SQS, IAM, Cloudwatch, Lambda, RDS, DynamoDB, Keyspaces, etc.
- Solid foundation in computer science, mathematics, physical sciences, and meteorology.
- Understanding of machine learning techniques and theories.
- Scrum agile, CI/CD, well-architected framework, public speaking, stakeholder engagement, scientific research, teaching experience, charitable fundraising, general aviation.

PROFESSIONAL EXPERIENCES

Sr. Scientific Software Engineer at *The Weather Company, IBM* 2016 – Present Engineered, operationalized, and maintained <u>IBM GRAF</u>, a GPU-accelerated weather forecasting system. It is the foundational infrastructure that drives <u>all</u> operational forecasting products at TWC, including but not limited to on-air programming, The Weather Channel, Weather Underground, and aviation weather products such as convective and turbulence guidance. Architected key components that drive the entire post-processing pipeline. Proactively modernized legacy operational infrastructures to ensure security and business continuity. Mentored team members on agile methodologies and engineering best practices.

- Delivering the world's most-accurate forecast according to ForecastWatch year after year.
- 10,000x speed-up of the mesh generation algorithm for the MPAS model relative to publicly known methods, a key enabling factor of IBM GRAF to match the ever-evolving business needs.
- 90–98% reduction in runtime for multiple internal meteorological verification toolchains, enabling stakeholders to generate the necessary reporting metrics in a timely manner.
- Recipient of the IBM Outstanding Technical Achievement Award (2020).

iOS Software Developer at Weather Services International

2014 - 2016

Revitalized WSI Pilotbrief, an iPad app used by commercial pilots at multiple major airlines. Provided critical insight and skills required to address numerous long-standing bugs and performance issues. Contributed much-needed domain expertise in aviation and meteorology to the existing team of software developers.

- 95% reduction in failure rate and significantly improved user experience and satisfaction by spearheading a major effort to revamp the internals of the app to improve performance and reliability.
- Ensured smooth feature rollouts by managing the beta program and interfacing with participants to solicit valuable feedback.

EDUCATION

University of Colorado at Boulder

2008 - 2013

Ph.D., M.S. Atmospheric and Oceanic Sciences

CERTIFICATIONS

AWS Certified Cloud Practitioner (CLF-C02)

issued by Amazon Web Services, Sep 2023

Scrum Master Certified

issued by SCRUMstudy, May 2023

Private Pilot License

issued by the Federal Aviation Administration, Nov 2016