CHRIS CARL

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Senior Software Engineer
Transforming Theory into Effective Practice

Objective

Seeking mastery and intuition of the fundamentals of machine learning, deep learning, and artificial intelligence to apply novel problem-solving approaches to today's existential challenges. Automation specialist with a proven track record of creating efficient software solutions, leading teams, and adapting academic principles to problems in real-world contexts.

Skills

High Proficiency: Python | SQL | PowerShell | Git | Software Architecture | Full Stack | Software Automation
Medium Proficiency: Bash | Flask | Angular | API | Concurrency | Microservices | Jira | Data Analytics

Education

- Jan 2025 – May 2025: Open University, taking Discrete Mathematics – San Jose State University, CA
- Dec 2024 - Jul 2025: Post Graduate (Certificate) Program in AI and ML – University of Texas at Austin, Online
- Jan 2015 - May 2019: B.S. in Computer Science / Computer Engineering - Florida Atlantic University, FL

Experience

Intel Corporation | Santa Clara, CA
Senior Software Engineer | January 2023 - September 2024
Served as a Tech Lead, Innovator, and System Administrator on a previously established team and drove effective efforts to reduce inefficiency while continuing sustaining support of this and the prior team's workflow.

- Co-owned the reliability qualification of 6th Gen Intel® Xeon® codenamed Granite Rapids using Python, SQL, and PowerShell for automated server testing. Partnered with 10 specialists in a cross-discipline posture, reduced bring-up time from 6 to 2 months, enabled customer-facing hardware telemetry, and more.
- Pioneered a pandas + matplotlib data analysis and visualization pipeline that identified 3 unique experiment showstoppers and was essential to rectify the affected experiments and verify the efficacy of the solutions.
- Partner Project Manager on a team of 7, created the requirements specifications, drove technical implementation discussion, and resulted in a deployment which reduced manual labor and misses by 30%.
- Implemented Shift Left into the existing automation like detecting hardware misconfiguration within first 5 rather than 20 execution minutes, reducing boot times from 30 to 8 minutes, and others.
- System Administrator of 5 on-prem servers and handled operating system upgrades, patching, software licenses, and redundant SSD storage pools for multiple teams totaling ~50 engineers.
- Refactored the existing core library with 12K deletions and 35k insertions over 673 files within 1 year.

Intel Corporation | Folsom, CA
Software Engineer | May 2018 - January 2023
Grew into the roles of Software Architect, Data Architect, Full Stack Engineer, and System Administrator and Data Architect owning "RDTF" and "ATLAS"—a big data scale automation ecosystem impacting ~25 engineers, collecting telemetry from ~200 testing servers, and achieved 120K+ days of combined test time since initial launch in Jun 2019.

- Architected, implemented, and lead the team for "RDTF"—an internal full stack Python/SQL server testing and telemetry framework used to declare market readiness on hundreds of $M of Intel® Optane™ 100 Series and 200 Series Persistent Memory products.
- System Administrator and Data Architect of novel SQL database schemas at big data scale for "RDTF" and "ATLAS", impacting ~25 engineers, ~200 testing servers, and 120K+ days of combined test time starting Jun 2019.

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- Architected and implemented "ATLAS"—a full stack Angular/Python/SQL microservices data collection suite for product engineers to automate their JMP and Excel workflows, saving on average 10-50 work hours per month across the team since 2019.
- Reduced query execution time by 30-50% by educating team members about transaction isolation and data locality.

Florida Atlantic University Division of Research | Boca Raton, FL
Software Internship | October 2017 - May 2018
Gathered customer-obsessed requirements and designed software architectures independently.

- Architected and implemented the full stack for "Occupancy Heat Map" - an IOT sensor research endeavor to track room occupancy telemetry, which included its Angular UI, Python API, MongoDB schema, and D3.js data visualization.
- Architected the Angular UI front-end and collaborated with a team of 4 on "Intelligent River" - an environmentally focused IOT research endeavor to collect telemetry from environmental monitoring devices, implemented the Angular 5 architecture, login authentication, RxJS-based data sharing, over 4 different features, and documentation for others to continue the project.

Xertigo | Boca Raton, FL
Software Internship | May 2017 - October 2017
Learned the foundations of software culture, agile, and work ethic.

- Implemented three API endpoints, four test suites, several SQL migration scripts for Walmart and other clients.
- Code Reviewer, participated in agile standup meetings, and approved pull requests submitted by software developer contractors.
- Utilized Docker containers hosted on Linux VM's deployed in AWS for development.

Community Involvement

Intel Corporation | Folsom, CA + Santa Clara, CA
Software and Python Instructor; Intern Mentor | 2019 – 2024

- Hosted academically oriented crash courses in Python, SQL, Web, Dev Ops, Git, Agile, and Databases with 25+ hours of dedicated internal video recordings. Mentored several interns throughout the years regardless of team proximity.

Intel Corporation | Folsom, CA + Santa Clara, CA
"Kid to Work Day" Instructor | July 2019 - July 2020

- Volunteered as an instructor, introduced elementary students to web concept design and middle school students to pseudocode! Check it out here: https://github.com/chrisbcarl/hangman

Vista Del Lago High School | Folsom, CA
Student Tutoring | August 2018 - May 2019

- Weekly tutoring sessions with several other Intel colleagues providing free tutoring services in math, science, statistics, and even English!

Code for Grove - Cyber Security Bootcamp | Elk Grove, CA
Instructor | June 2018

- Volunteered as an instructor at a 2-day boot camp for high school students introducing cyber security, password security, social engineering, client-server architecture, ciphers, and even PKI! https://www.prlog.org/12710912-code-for-grove-to-hold-2-day-cybersecurity-bootcamp.html