

Chris Jones

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Professional Experience

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|---|--------------------------|----------------|
| Computer Science Teacher | Arlington Public Schools | 2022 - Present |
| <ul style="list-style-type: none">○ Develop engaging, project-based curriculum to encourage independent learning in Advanced Placement and Dual Enrolled courses. Documented select projects and lesson plans on my personal teaching portfolio: https://chrismjon.es/portfolio/○ Emphasize cross-curricular projects, including collaborations with culinary arts, cosmetology, library sciences, college and career counseling.○ Cultivate a safe, welcoming environment for students through involvement in class, before/after school, during lunches, and via extracurriculars (Coding Club, Game Development Club, Bike Club, Outdoors Club, Cohort).○ Publish OER curriculum materials via GitHub/Codeberg, YouTube, and public course website (https://ict.gctaa.net). Contributed to open textbooks on https://openbookproject.net/○ Countywide Lead High School Computer Science Teacher for 2023-2024 school year, guiding curriculum and instruction across the district and mentoring new teachers.○ Developed a course advising website that helps students and families decide which computer science courses to take (https://apscs.org). Conducted dozens of interviews with stakeholders to inform content and design, and disseminated to counselling staff. | | |
| Mastercard, Data and Services Platforms (formerly Applied Predictive Technologies, acquired in 2015) | 2013 - 2022 | |
| <ul style="list-style-type: none">○ As Principal, Product Manager - Technical<ul style="list-style-type: none">○ Led cross-functional teams to design and implement internal-facing data platforms and infrastructure, enabling analysts and other platforms to consume Mastercard's transaction data assets (>100 billion transactions annually).○ Collaborated with business stakeholders, privacy/governance teams, and technical teams to ensure projects met business objectives, budget/schedule constraints, and complied with privacy controls across geographies.○ As Director, Data Engineering<ul style="list-style-type: none">○ Led a team of ~60 engineers and product managers across four continents.○ Managed the collection and processing of transaction-level data from Mastercard, clients, and partners.○ Architected data pipelines and warehouses to meet client- and project-specific analytical needs.○ Contributed significantly to recruiting, conducting and assessing over 100 interviews. | | |

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| Parent | 2022 - Present |
| <ul style="list-style-type: none">○ Deliver engaging, educational activities for an energetic three-year-old.○ Encyclopedic knowledge of Paw Patrol cinematic universe - can recite plots of episodes on demand.○ Practical Study of System Dynamics - I can make waffles faster than a toddler can eat them.○ Practical study of Linux System Administration - maintain a home media server that is accessible over the internet, requires constant uptime, can respond to queries like "Paw Patrol Episode with a skunk", and can stream to a variety of devices. | |

Education

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| University of Colorado Boulder | Boulder, CO |
| M.S. Computer Science | In Progress |
| Virginia Tech | Blacksburg, VA |
| M.S. Systems Engineering | May 2021 |
| University of Virginia | Charlottesville, VA |
| B.S. Computer Science | May 2013 |
| <i>Jefferson Scholar</i> (full academic scholarship) | |

Selected Educational Experience

Active Teaching Licensure

Virginia Department of Education

- Endorsements: Computer Science, Physics

Languages Taught

-  Python (including Django, Flask, Pygame, Jupyter Notebooks, Pandas, spaCy, Scikitlearn, CMU CS Academy)
-  Java
-  HTML/CSS
-  JavaScript
-  SQL (SQLite, PostgreSQL)

Courses Taught

- Through Northern Virginia Community College DE Program:
 - ITD110 and ITD210 - Web Page Design I / II
 - ITE 140 - Spreadsheets for Business
 - ITD256 - Advanced Database Management
 - ITP 225 - Web Scripting Languages
 - CSC 221 - Introduction to Problem Solving and Programming
- Wakefield High School / Arlington Tech
 - Introduction to Information Technology
 - Computer Programming
 - Advanced Computer Programming
 - AP Computer Science A
 - AP Computer Science Principles

University Guest Lecturer

- As part of Mastercard recruiting efforts, presented guest lectures on Data Engineering to graduate-level classes at UVA, CMU, Texas A&M

Presentations

- "Building an Integrated Computer Science / Web Development Pathway with Python" at PyCon US 2025 Education Summit, with Jeff Elkner
- "Using OER to Create an Integrated CS/Web Development Pathway" at 2026 Joint VCCS Technology Peer Group Meeting (upcoming)

Classroom Tools

- Developed and published tools that allow teachers to use Markdown to write, version-control, and publish professional documents including lecture slides, tests/quizzes/exams, course websites, recommendation letters, syllabi, etc. (This resume is written in Markdown!). Conversion uses LaTeX, Pandoc, Reveal.js, and Mermaid.js
- Designed and created a hallpass system that allows students to request passes via a web interface connected to an in-classroom raspberry pi and receipt printer.

Community

CRM Developer & Maintainer

Liberty's Promise

2013 - 2021

- Designed, built, and deployed a custom case management database and web application for this nonprofit serving DC-area immigrant youth. Provided on-call support and additional feature development for eight years.

Board Member

Social Justice Computing

2025 - Present

Music Streaming Platform Developer

DistrikKollective

2025 - Present

- Working with this DC-based musician cooperative to create and deploy a local, musician-owned music streaming platform, using open source software.