

Chris Jones

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Professional Experience

Computer Science Teacher Arlington Public Schools 2022 - Present

- 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 2013 - 2022
(formerly Applied Predictive Technologies, acquired in 2015)

- As Principal, Product Manager - Technical
 - 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
 - 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.

Parent 2022 - Present

- 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

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.