

# Chris Jones

⊕ <https://chrismjon.es>

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## Professional Experience

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|---------------------------------|--------------------------|----------------|
| <b>Computer Science Teacher</b> | Arlington Public Schools | 2022 - Present |
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- 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.

## Education

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

## Selected Educational Experience

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### 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 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

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### 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

### Web 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.