

## Henry F. Williams

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### Education

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- Colorado State University**, Fort Collins, CO **Aug 2022 to present**
- PhD Economics
  - Graduate Teaching Assistant
- Cornell University**, Ithaca, NY **Aug 2020 to May 2022**
- MS in Applied Economics and Management
  - Relevant coursework: applied econometrics, microeconomics, environmental economics (MS & PhD)
  - Thesis: use environmental input-output models to quantify emissions from the U.S. food system, decomposed into supply chain stages
    - Currently collaborating with USDA economist Patrick Canning to extend and publish research
- Pennsylvania State University**, State College, PA **Aug 2007 to May 2011**
- Schreyer Honors College graduate: GPA 3.7/4.0
  - BS in Economics; BA in International Politics
  - Spain study abroad for Spanish Minor
  - US Senate Office Internship; Sierra Student Coalition volunteer

### Professional Experience

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- Graduate Research Assistant**, Ithaca, NY **Jan 2021 to May 2022**
- GRA for Professors Miguel Gómez and Christopher Barrett: working with USDA economist Patrick Canning on the UN FAO Global Food Dollar project, modeled on the USDA Food Dollar Series
  - Use input-output models to calculate food value chain metrics—decomposed by industry and primary factors (see *Projects* below for the usage of SQL, SAS, and STATA)
- United Nations Food and Agricultural Organization**, *remote* **Jun 2021 to Aug 2021**  
**Junior Statistician** (*summer program*)
- In collaboration with UN FAO Statistics Division, work to extend the input-output modeling conducted as Cornell GRA (see *Projects* for data product output)
- Visa Inc**, San Francisco, CA **Jul 2012 to May 2020**
- Manager – Analytics & Service Delivery** **Mar 2016 to May 2020**  
**Launch new Analytics service globally**
- Create business analytics framework (see *Projects - Professional for analytics*)
  - Pitch analytics service to internal and external stakeholders
  - Serve as internal and external product expert
- Consultant – Product & Implementation** **Apr 2014 to Mar 2016**  
**Manage product enhancements from development to implementation**
- Manage product enhancements, interfacing with business and development (see *Projects for Product Development*)
  - To launch new partner bank, define, implement, and manage testing process
- Analyst – Product & Implementation** **Jul 2012 to Apr 2014**  
**Manage software testing and implementation**
- Lead software implementation and testing
- OneSchool**, Berkeley, CA (*mobile startup with Penn State students*) **May 2011 to Aug 2011**
- Manage company seed-funding accounts and analytics tools

### Skills & Knowledge

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#### Database, data visualization, optimization, econometrics

- MS Excel, Access, SQL, R, STATA, SAS, GAMS, Tableau, Qlik, Power BI

#### Business tools & processes

- AGILE development, JIRA, Confluence, Salesforce

## Awards

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- Awarded Freedom Quarterly “Clever and Curious” recognition for work in analytics: created a data visualization tool of key performance metrics to help internal Business Managers and to prototype external service offering
- Cornell MS first year full scholarship—Richard D. Aplin Teaching Excellence Fund

## Projects - Academic

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### Input-Output Modeling

**Jan 2021 to Aug 2021**

- As Cornell GRA, collaborate with the UN FAO Statistics Division and USDA Economic Research Service
- Use SQL data tables to cleanse and manipulate OECD input-output data tables
- Import data from SQL into SAS
- In SAS, execute matrix computations using input-output model, and analyze results from OECD data
- Replicate the USDA SAS code in the STATA coding language, for use by UN FAO
- Replicate the results from OECD data for Asian Development Bank (ADB) data, using STATA code
- Analyze ADB results, develop a Summary Report, and present findings to Cornell, USDA, and UN FAO
- Document methodology and procedures for ongoing use by UN FAO
- UN FAO published data product available here: <https://fenix.fao.org/faostat/internal/en/#data/GFDI>

### Design R Data Visualizations

**Mar 2021 to Apr 2021**

- Use R “raster” data types for spatial data analysis
- Merge raster data—showing temperature increase over time and space globally—with population data
- Develop code that plots a global map of population-weighted deviations from average temperature over 50 years—averaging across the middle 20 years
- Combine the 50 data visual images into a video file, showing how temperatures have increased over time and in which regions the increase is greatest

## Projects - Professional

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### Launch Analytics Service

**Jan 2017 to May 2020**

- Create banking partner dashboard
- Define data inputs from production database
- Create Access database, and link to Power Bi, using SQL queries
- Configure Power BI data visualizations, and publish reports of key platform performance metrics
- Develop business plan for new partner service
- As subject matter expert, train other team members on usage of Power BI Analytics tool

### Create Analytics Service business plan to pitch internally and externally

**Jan 2017 to May 2020**

- Define Analytics Service to be provided, articulating the value of service
- Estimate cost of service provision, including technical cost (servers, licenses) and developer time
- Define pricing and projected revenue during initial onboarding and BAU operation
- Pitch Service internally to gain support of delivery teams, and externally to secure service demand

### Product Development for Big Four Canadian Bank

**Recurring 2-3 month projects**

- Manage product development, coordinating internally with developers and externally with partners
- Working with developers, understand scope, cost, and timeline of proposed solutions
- Monitor technical integrations for web services and data files, to ensure on track in preparation for testing
- Through User Acceptance Testing and then implementation, launch solutions into Production

### Consulting for Fortune 200 multinational payments network

**Apr 2014 to Dec 2015**

- Lead User Acceptance Testing, product enhancements, and implementation
- Serve as subject matter expert for partner white-label, as service worth \$240,000 annually