Henry F. Williams
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Education

Colorado State University, Fort Collins, CO   **Aug 2022 to present**
- PhD Economics
- Graduate Teaching Assistant—lead recitation classes and grade assignments

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 analyze energy use across the food value chain

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

Graduate Research Assistant, Ithaca, NY   **Jan 2021 to Present**
- GRA for Professors Miguel Gómez and Christopher Barrett: working on the Global Food Dollar project, modeled on the USDA Food Dollar Series
- Use an input-output model to calculate food value chain metrics—decomposed by industry and primary factors—with data tables created in SQL Server and matrix computations completed in 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

Fraedom (a Visa company), San Francisco, CA   **Jul 2012 to May 2020**
Payments & expense software-as-a-service

   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

Database & data visualization
- MS Excel, Access, SQL, R, STATA, SAS, GAMS, Tableau, Qlik, Power BI

Business tools & processes
- AGILE development, JIRA, Confluence, Salesforce

Awards

- Awarded Fraedom 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—and second year full funding as a GRA

Projects - Academic

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

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

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