

- EXPERIENCE**
- Principal Data Science Engineer* at **Teikametrics, Inc.** July 2019 - Present
Senior Data Science Engineer at **Teikametrics, Inc.** December 2017 - July 2019
- Served as tech lead for 12-person Data Science group; liaised directly with clients
 - Architected core machine learning training and serving platform atop AWS SageMaker, allowing rapid prototyping with CI/CD (see “Conferences”)
 - Genericized and adapted existing Scala-based automated bidding technology to new advertising products, directly enabling over \$1m/yr in additional revenue
- Software Engineer* at **Curata, Inc.** April 2017 - November 2017
- As part of Research and Development division, leveraged NLP, ML, and optimization techniques in ideating, prototyping, developing, and productionizing new analytics features using Jupyter Notebooks, nltk, spaCy, and d3.js.
 - Redeveloped and improved performance of critical Python ETL systems, in one instance bringing user-facing requests from 3 minutes to under 5 seconds.
- Software Engineer* at **Skyscanner, Ltd.** May 2013 - February 2017
- Performed business-critical operations for Sequoia-Capital-backed startup up to and during \$1.7bn exit; produced codebase audit requisite to acquisition
 - Maintained and developed highly-available, service-vital web scraping and deep-linking platform and associated Python framework, parsing over 10 GB/s of data to serve more than 5000 requests/second
 - Delivered NLP/ML-based tool for automatic point-and-click web scraper generation
 - Proposed and authored Selenium WebDriver-based web scraper framework in Python
 - Created AST-based tooling allowing real-time analysis, manipulation, generation, and automated quality assurance of code in multi-million line legacy Python codebase
- EDUCATION**
- University of Edinburgh:** *MSc. Artificial Intelligence* 2015 - 2016
Specialism in Natural Language Processing
Dissertation: [Applying Statistical Language Modeling to Genetic Programming](#)
- University of Edinburgh:** *MA Hons. Cognitive Science* 2011 - 2015
First-class honours
Dissertation: [Understanding Referential Coordination as a Particle Swarm Optimization Task](#)
- SKILLS**
- Code: Python, Scala, SQL, Haskell, Matlab
 - Data: XPath, PostgreSQL, Snowflake, Airflow, DBT, Protobuf, Avro, Hadoop
 - Build/Deployment: Docker, AWS, Heroku, CircleCI, RPM
- CONFERENCES**
- 2020.** [“Painless Machine Learning in Production.”](#) EuroPython 2020. Online.
- 2018.** [“Exploring the Python AST Ecosystem.”](#) EuroPython 2018. Edinburgh, UK.
- 2015.** Stevens, H. C. & Rohde, H. “Modeling Referential Coordination as a Particle Swarm Optimization Task.” The 19th Workshop on the Semantics and Pragmatics of Dialogue. Gothenburg, Sweden.
- OPEN-SOURCE PROJECTS**
- [bellybutton](#): linting engine for Python allowing custom rulesets
 - [astpath](#): command-line utility/library for searching Python codebases via AST queries
 - [monkeys](#): strongly-typed genetic programming framework
 - [showast](#): Jupyter plugin for AST visualization; used in CS curriculum at Bryn Mawr
 - [hypothesis-protobuf](#): property-based testing utility for Protocol Buffer messages