

Daniel Brice

Software Engineer
San Francisco, California
linkedin.com/in/dbrice
danielbrice.net
danielbrice@gmail.com
(818) 600-2256

Seeking opportunities to design and implement robust systems, mentor colleagues, and drive productivity. Remote or hybrid in the Bay Area.

Skills

Haskell | Scala | Java | Typescript | Purescript | Elm | Nix | PostgreSQL |
Mentoring colleagues | Communicating technical topics | Mathematical modeling | Machine learning

Education

BS, Mathematics	California State University Channel Islands	2004 - 2008
	<ul style="list-style-type: none">Graduated Cum Laude and received Department Honors.	
PhD, Mathematics	Auburn University	2008 - 2014
	<ul style="list-style-type: none">Received 2009 Baskervil Fellowship awarded by Mathematics Department	

Work Experience

Senior Software Engineer	Mercury Technologies	Jul 2020 - Apr 2024
	<ul style="list-style-type: none">Designed and implemented partner API integrations.Developed curriculum for engineering on-boarding and mentored dozens of new hires.Worked on the Developer UX team, delivering productivity-enhancing tools for engineers.Designed detailed database schemas based on the event sourcing model.	
Lecturer of Mathematics and Computer Science	California State University, Channel Islands	Jul 2018 - Dec 2023
	<ul style="list-style-type: none">Developed and taught Mathematics and Computer Science courses online, including: Strategies and Game Design, Introduction to Algorithms.	
Senior Software Engineer	HG Insights	May 2020 - Jul 2020
	<ul style="list-style-type: none">Maintained and developed a high-volume data processing pipeline and archiving system.	
Senior Full-Stack Engineer	Lumi	Jul 2018 - Mar 2020
	<ul style="list-style-type: none">Implemented features for Lumi's proprietary supply-chain management software system.	

Software Engineer III

CJ Affiliate

Jun 2016 - Jun 2018

- Designed and implemented high-volume, high-availability, data-intensive distributed systems.
- Developed machine-learning applications and the underlying statistical models.
- Designed and implemented GraphQL API services.

Lecturer of Mathematics

California State University, Bakersfield

Jul 2015 - Jun 2016

- Conducted independent and collaborative research in advanced Mathematics.
- Developed and taught Mathematics courses including: Calculus with Business Applications, Calculus with Engineering Applications, Introduction to Advanced Mathematics.

Assistant Professor of Mathematics

Tuskegee University

Aug 2014 - Jul 2015

- Conducted independent and collaborative research in advanced Mathematics.
- Developed and taught Mathematics courses including: Calculus, Pre-Calculus, Trigonometry.

Open Source Contributions

Alloglot

Designed and implemented a zero-conf, language-agnostic IDE plugin for VS Code to hasten new engineer on-boarding (<https://github.com/mercuryTechnologies/alloglot>).

Aeson

Implemented a novel and flexible solution to a long-standing issue in the Haskell JSON library Aeson (<https://github.com/haskell/aeson/commit/2f8ed86dbc4f97f42219db4f735817c704028841>).

Publications

On zero product determined algebras (w/ H Huang)

Linear and Multilinear Algebra, vol. 63(2), pp. 326–342, Feb. 2015 (<https://www.tandfonline.com/doi/abs/10.1080/03081087.2013.866668>).

The matrix Lie algebra on a one-step ladder is zero product determined

Alabama Journal of Mathematics, vol. 39, Dec. 2015 (<https://www.ajmonline.org/volume-39-2015/>).

On Derivations of Parabolic Lie Algebras

Journal of Lie Theory, vol. 27(1), pp. 217–236, Feb. 2017 (<https://www.heldermann.de/JLT/JLT27/JLT271/jlt27012.htm>).

Selected Presentations

Automatic Differentiation in Haskell

Santa Monica Haskell Users Group, Dec. 2016 (<https://www.youtube.com/watch?v=q1DUKEOUoxA>).

Thompson Sampling

Papers We Love Los Angeles, Mar. 2017 (<https://www.youtube.com/watch?v=dWYFCO2XYa0>).

GraphQL and Sangria

Los Angeles Scala Users Group, Jul. 2018 (<https://www.youtube.com/watch?v=wXz3tSEqxMg>).

Finding a needle that might not be there in an infinite haystack

Haskell talks at Mercury, Nov. 2022 (<https://www.youtube.com/watch?v=0PIRNdxB1S0>).