

# DANIEL SURYAKUSUMA

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## ACTUARIAL EXAMS

Exam P/1: Passed | July 2017  
Exam FM/2: Passed | Oct 2017  
Exam IFM/3: Sitting | Nov 2019

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## TECHNICAL PROJECTS

**Insuring Against Going Viral: Life Expectancy on Spotify Top Charts** | ([dsury.com/bohemian-rhapsody](https://dsury.com/bohemian-rhapsody))

- Investigated the extent songs going viral affects monetary loss due to royalty payments in the case of fixed subscription premiums; employed market pricing models to predict movement on Spotify charts (i.e. Queen's "Bohemian Rhapsody")
- Applied basic actuarial models (frequency/severity, loss development, trend selection) to model popularity decay as well as quantify estimated loss due to royalty payments for the life of a song on Spotify Top Charts
- Programmed an automatic web scraping and analysis tools in R to gather, compile (> 15 million lines of data in .csv), and summarize Spotify metrics for user-specified time and region granularity, integrating relational databases (PostgreSQL, Access) to query data and perform empirical and analytical estimations to construct models to infer seasonality trends and consumer behavior
- Designed Monte Carlo simulations to generalize estimators to provide insight for populations beyond Spotify users

**Livetype TeX (GitHub Atom, Open-Source)** | ([dsury.com/tex](https://dsury.com/tex) ; example: [128a.dsury.com](https://github.com/dsury/128a))

- Built a customizable CoffeeScript (.cson) library for code completion and error correction, enabling real-time rapid typesetting of precise technical notes in a fast-paced challenging lecture setting by integrating GitHub Atom functions, packages and libraries
- Currently working under Berkeley Statistics professor Jim Pitman as scribe for Stochastic Processes

**The Infinite Actuary: Technical Skills Course** | ([dsury.com/projects](https://dsury.com/projects))

- Built a MS Access database for an electronics company featuring different products and brands for warranty sales and loss, and queried data to generate summary KPI dashboards in Excel
- Constructed a simple life insurance pricing model based on IRS prescribed mortality tables and various defined benefit plans

## TECHNICAL SKILLS

MS Excel {advanced} + VBA {experienced} | SQL {experienced} : MySQL / PostgreSQL / MS Access  
R : RStudio {advanced} | Python {experienced} | MATLAB {advanced} | Web : (experienced) JS / HTML / CSS | LaTeX {advanced}

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## EDUCATION

University of California, Berkeley | Berkeley, CA  
B.A. Applied Mathematics | May 2020  
Major GPA: 3.46/4.00

University of California, Berkeley – Extension | Berkeley, CA  
C.P. Certificate Program in Paralegal Studies | Awarded Jan 2017

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## PROFESSIONAL EXPERIENCE

**Berkeley Center for Law & Technology** | UC Berkeley School of Law, Berkeley, CA

Web Development Lead, Administrative Assistant | Aug 2013 – May 2015

- Synthesized 500+ business account data sets into relational databases, integrating Salesforce API for queries and key insights
- Tailored web solutions for Berkeley Law faculty, streamlining logistics and communications for conferences and symposiums
- Generated data-driven infographics and dashboards for marketing, sponsorship, and engagement by corporate law firms

**Berkeley Technology Review** | [berkeleytechreview.com](https://berkeleytechreview.com)

Contributing Editor, Web Developer | Sep 2014 – May 2015

- Created and published articles on privacy, copyright law, and disruptive technologies
- Integrated elements of different web application platforms into an intuitive and reactive user interface, built from Drupal, Nodejs

**Relay for Life, American Cancer Society** | Walnut, CA

Logistics Committee Chair | Sep 2011 – May 2013

- Led business meetings with corporate leads and intercity officials to close sponsorships and authorized clearance for operations
  - Cost containment and policy-compliance of event and year-round expenditures, managed inventory and rental equipment
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## AWARDS

Undergraduate Research Opportunity Program Scholar, UC Berkeley | Jan 2015  
Thomas Stern Calculus Excellence Award | May 2013  
AP National Scholar Award | July 2013