

# JAMES (“JIMMY”) BRIGGS

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## PROFESSIONAL SUMMARY

Creative and entrepreneurial Software Engineer and Actuarial Scientist with background working in dynamic and progressive environments as both an actuary and a developer in large and small organizations. Fluent in many languages and frameworks used to develop software within a wide variety of industries.

Collaborative team player focused on scoping projects and achieving objectives with speed and accuracy. Successful history of identifying patterns, making interpretations and producing results.

## SKILLS

- R Programming Language - Expert
- Shiny Framework for Web Application Design
- Software Engineering and Package Creation
- Certified in Actuarial Science
- Advanced Statistical Modelling
- Statistical Analysis and Data Science
- Full-scale System Design
- Database Design and Administration
- REST API Design
- Cloud Computing and Serverless Infrastructure
- Google Cloud Platform and Microsoft Azure
- Continuous Deployment and DevOps
- Kubernetes and Docker
- Source Code Management/Version Control
- Machine Learning and Artificial Intelligence
- Mathematics and Problem Solving
- Personal Knowledge Management (PKM)
- Leadership, Mentorship, Project Management

## EDUCATION

**University of Georgia** - Athens, GA – Graduated with a **4.0 GPA**

05/2015

**Bachelor's Degree:** BBA Finance – Terry College of Business

**Minors:** Non-Parametric Mathematical Statistics and Actuarial Science

**Relevant Courses:** Statistical Mathematics; Non-Parametric Statistics; Multivariate Calculus; Financial Mathematics; Bioinformatics; Theoretical Physics; Econometrics; Business Leadership; Financial Derivatives; Advanced Micro and Advanced Macro Economics; Theory of Interest; Corporate Finance; Management of Information Systems Technology

### Awards:

- Summa Cum Laude
- Dean's List
- Zell B. Miller and HOPE Scholarships
- AP Scholar Award
- Certificate of Excellence in Actuarial Science\*

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\* Awarded the *Certificate in Actuarial Excellence* for successfully completing two Actuarial Exams while an undergrad.

## CERTIFICATIONS

- CAS Exam S - Casualty Actuarial Society - May 2017
- CAS Exam 4/C - Casualty Actuarial Society - July 2016
- SOA Exam MFE - Society of Actuaries - July 2015
- SOA Exam P - Society of Actuaries - September 2014
- SOA Exam FM - Society of Actuaries - April 2014

## WORK HISTORY

### **Chief Data Scientist – Senior Software Engineer**

10/2020 - Current

**Tychobra, LLC** - Atlanta, GA (a startup data analytics and web application firm)

- Provided comprehensive analysis as well as cutting-edge web applications to address complex business problems related to data science, actuarial science, database management, and cloud computing.
- Lead developer charged with design of large-scale water distribution/delivery system for client out of Africa (specifically for delivering water to customers from middle tier vendors). This massive undertaking involved all aspects of system design from mobile and web front-end clients, authentication middleware, security and IAM, as well as back-end API and database design.
- Trained small team of ~5 Kenyan developers on API and Database design, specifically for event-driven or "async" architectures.
- Created and designed over 10 production grade web applications for both open and closed source projects.
- Launched an actuarial science initiative leading to the design of many cutting edge actuarial related software and web application projects.
- Led the company's marketing for our core SaaS product through SEO and advanced digital marketing strategies.
- Wrote regularly about my learnings and made public to gain an inspiring audience of others interested in similar development work.

### **Actuarial Analyst – Web Application Specialist**

05/2015 - 10/2020

**Oliver Wyman** - Atlanta, GA (a leading global actuarial consulting firm)

- Worked with large corporate clients on Property Casualty Actuarial Reserve Estimates, Rate Making, Predictive Analytics, and general P&C Actuarial Consulting.
- Maintained large codebase of over 500 repositories and ~80 developers related to new development initiative.
- Trained over 15 new hires interested in pursuing development work alongside their actuarial studies.
- Created new cutting-edge property insurance rate making model delivered through web application interface for allocating premiums in large self-insured corporate environments.

- Created two new Medical Professional Liability dashboards for clients in healthcare and medical industries. These dashboards helped both client and actuaries involved in projects understand and visualize complex medical and actuarial related data through centralized dashboard interface.
- Designed micro-claims predictive analytics model that involved many various high-level statistical designs, including but not limited to ensembles of generalized linear models and logistic regressions (GLMs), generalized additive models (GAMs), thin-plate regression splines, neural networks, and random forest algorithms to supplement traditional macro actuarial methods.
- Launched "Developer Initiative" across whole practice to help bring together various developers and share intellectual capital and knowledge with one another. This initiative also led to an Oliver Wyman branded product still sold today to large clients.

### **Featured Project: Powwater System Design – Project Lead**

January 2021-Present

**Powwater** – Mombasa, Kenya (an internationally funded sustainability enterprise) [Website](#)

- Created, designed, and maintained the lifetime of the core, monolithic backend database using PostgreSQL hosted on Google Cloud SQL. Created initial “mock” database for initial development and testing through the final production database used at initial beta test launch.
- Orchestrated and decided the many various cloud services to use throughout the project including a multitude of GCP APIs, Google Maps APIs for real time delivery tracking, reverse geocoding, and route optimization/dispatching, Firebase for mobile app authentication and user management, M-Pesa/Safaricom APIs for secure payment gateways, Africa's Talking for communications and notifications, and other services.
- Utilized React Native to build both Android and iOS mobile applications for customers, vendors, and riders (deliverers) in conjunction with the orders management API to allow mobile clients to interact directly with the database.
- Designed two administrative dashboards as web applications (one for vendors and one for Powwater admins) to oversee the operations of the system in real time.
- Created a NoSQL database for document storage related to real-time water quality tests received from the vendors providing the water to customers.
- Created a NodeJS Express API for interacting with the African specific payment APIs as well as Apache Kafka, GCP Pub-Sub, and PostgreSQL message queues to create a hybrid event driven backend. This architecture allowed for seamless communication between the various client applications and the backend.
- Designed promotional website as well as wrote all project-wide documentation, from the highly technical to the end-user guides.
- Trained and onboarded 5 new Kenyan developers remotely onto to the project.

### **INTERESTS**

- Golf
- History, Physics
- Travel
- Personal Knowledge Management and Information Systems