

# Samuel Britt

From materials engineering to software development through a passion for technology.

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## EDUCATION

- 2011–2013 **M.S., Computer Science** GPA: 3.7.  
Georgia Institute of Technology, Atlanta GA  
Specialization in Systems Software.
- 2009–2011 **Graduate Research Assistant, Materials Science & Engineering, Mechanics of Materials** GPA: 3.9.  
Georgia Institute of Technology, Atlanta GA  
Modeling and simulation research in the mechanics of  $\alpha+\beta$  titanium alloys.
- 2004–2009 **B.S., Highest Honors, Materials Science & Engineering** GPA: 4.0.  
Georgia Institute of Technology, Atlanta GA

## SKILLS & TECHNOLOGIES

- Proficient: C, Python (and SciPy), Perl, SQL, Git, Perforce, UNIX, Linux, Vim, L<sup>A</sup>T<sub>E</sub>X.
- Familiar: C++, Java, MATLAB, FORTRAN, GDB, OpenMPI, Bash, Eclipse, Android development.

## EXPERIENCE

- 2015–present **Staff Developer, People Manager, athenahealth, Atlanta, GA.**
- Led a team of 7 stateside and offshore developers in developing and operating a distributed ETL pipeline from an Oracle/Linux stack into centralized Microsoft SQL Server databases.
  - Stabilized ETL operations, bringing monthly failure rates from around 9% to less than 0.5%.
  - Developed a variety of internal tools to improve team productivity, leveraging shell scripts, perl, and Backbone.js.
  - Developed a data access API and SQL query-generating platform servicing BI applications.
  - Selected to join a small Agile Scrum team developing the next-generation data analytics architecture for athena.
  - Architected ETL into Snowflake, the cloud-based MPP database, and developed data models in the Looker modeling and visualization tool.
- 2014–2015 **Senior Developer, athenahealth, Atlanta, GA.**
- Developed a T-SQL based data transformation framework to allow for rapid extensions of existing data pipelines.
  - Leveraged the framework to rapidly deploy a transformation of our largest data pipelines into a columnar database format, dramatically reducing runtimes for analytics queries.
- 2013–2014 **Developer, athenahealth, Atlanta, GA.**
- Data customization and ETL process automation for Analytics, a health care revenue cycle business intelligence tool targeted at large health systems. Utilized the Microsoft BI stack: SSIS, T-SQL, and SQL Server.
- 2012–2013 **Teaching Assistant, Database Systems, Georgia Institute of Technology, Atlanta, GA.**
- Held one-on-one meetings in class of over 240 students to teach concepts such as entity-relationship data modeling and gave technical help in implementing database-driven applications using MySQL and PHP.
- 2009–2011 **Graduate Research Assistant, Materials Simulation, Georgia Institute of Technology, Atlanta, GA.**
- Simulated the mechanical response and texture evolution of  $\alpha+\beta$  titanium alloys via multiscale modeling.
  - Implemented thermally activated crystal plasticity model, microstructure generation code, and post-processing routines using FORTRAN, C++, MATLAB, and Python.
  - Presented results regularly at the meetings of the Center for Computational Materials Design.
- 2005–2009 **Engineering Co-op, Composites Research, Southern Research Institute, Birmingham, AL.**
- Spent five terms performing high-temperature materials research for the aerospace industry.
  - Investigated the kinetics of phenolic pyrolysis via thermogravimetry at temperatures up to 1100 °C.
  - Co-authored a report presented at the 56<sup>th</sup> JANNAF Propulsion Meeting.
  - Designed facility for high-temperature and high-pressure thermogravimetry and dilatometry.

## ADVANCED COURSEWORK

- Computer Science Adv. Operating Systems, Real-Time & Embedded Systems, Computability and Algorithms, HPC Architecture, Applied Cryptography, Internet Computing, Software Engineering: Analysis & Testing.
- Modeling & Simulation Statistics & Numerical Methods, Parallel & Vector Scientific Computing, Adv. Constitutive Relations of Solids, Continuum Mechanics, Quantitative Characterization of Materials.
- Materials Engineering Mechanical Behavior of Composites, Thermodynamics of Materials, Kinetics of Phase Transformations, Studies in structure-property relationships of alloys, ceramics, polymers, semiconductors, and composites.

## SCHOLARSHIPS & AWARDS

- 2015 **Banner Year Award**, *for exceptional "stand-out" performance and significant business impact in a calendar year.*
- 2014 **Extra Mile Award**, *for extraordinary effort, taking on work outside job scope to help a colleague.*
- 2007 **Henry Ford Award**, *for the most outstanding academic record in the junior engineering class.*
- 2004 **President's Scholarship**, *Tech's premier merit-based scholarship awarded to approximately 2% of students.*