Matt McGinnis

Associate Software Engineer with Travelers

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Education

University of Delaware — *Newark, DE*
Ph.D. & M.S. in Mathematics — *May 2013 - May 2018*
- Dissertation: Combinatorial and Spectral Properties of Graphs and Association Schemes

University of North Carolina Asheville — *Asheville, NC*
B.A. in Mathematics — *Aug. 2009 - May 2013*

Experience

Travelers — *Raleigh, NC*
Associate Software Engineer — *June 2021 - Present*
- Currently maintain and develop the Bond Claim Management System application, the Letter Genie application as well as other applications within the Bond and Specialty Insurance division.
- Development stack includes VB.NET, C#, .NET, Javascript, Microsoft SQL Server, MongoDB, AWS and Git.

Farragut Systems — *Durham, NC*
Software Developer I — *Nov. 2018 - June 2021*
- Maintained and developed both legacy desktop applications and freshly deployed web applications.
- Contributed to several projects including the conversion of Matlab code to an Azure Web App, refactoring and data migration of a financial data reporting application for the Pennsylvania Compensation Rating Bureau, enhancements related to the scheduled batch process of our main application and much more.
- Development stack included C#, .NET, Oracle SQL, Microsoft SQL Server, Azure Devops, Git, Subversion and Docker

University of Delaware — *Newark, DE*
Adjunct Professor, Instructor & Teaching Assistant — *Aug. 2013 - July 2018*
- Math 242: Analytic Geometry and Calculus B. Topics include exponential and logarithmic functions, sequences, series, integration techniques, parametric curves and polar coordinates.
- Math 241: Analytic Geometry and Calculus A. Topics include functions, limits, differentiation and integration.
- Math 230: Finite Mathematics with Applications. Topics include set theory, probability, optimization, linear programming and introductory matrix methods.
- Math 210: Discrete Mathematics I. Topics include set theory, logic, induction, counting, introductory graph theory and power series.

University of Delaware — *Newark, DE*
Research Assistant — *Aug. 2013 - May 2018*
- Used eigenvalues of matrices associated with graphs to obtain results about structural and combinatorial properties.
- Developed and maintained Python code to search for subgraphs with specific structural properties and published results.

Software Development

Python 3, C# & .NET, SQL, Git
Experience
- Six years experience with Python 3 and Git. Python 3 is my language of choice for personal projects. I am just as comfortable with Python 3 as C# and am looking to transition to a role where I get to use my knowledge of Python more often.
- Four years professional experience working with SQL, C# / .NET Framework.

HTML5, CCS3, Javascript
Experience
- Minor experience with HTML5 and CSS for development of personal website and small projects/bugs in the workplace.
- Basic knowledge of Javascript and frameworks like React and Vue. Minor experience developing with these tools in a professional capacity.

Other Technologies
Experience
- Big fan of Linux and using Vim as my main editor, exploring different plugins and discovering new quirks all the time.
- Interested in learning more about ML, AWS and cloud computing in general. I earned my AWS Cloud Practitioner Certification on June 30, 2022.

Publications

- ***The smallest eigenvalues of Hamming graphs, Johnson graphs and other distance-regular graphs with classical parameters***
  A.E. Brouwer, S.M. Cioabă, F. Ihringer & M. McGinnis
  J. Combin. Theory Ser. B **133** (2018), 88–121
- ***Cospectral mates for the union of some graphs in the Johnson scheme***
  S.M. Cioabă, W.H. Haemers, T. Johnston & M. McGinnis
  Linear Algebra Appl. **539** (2018), 219–228.