TRAVIS BROOKS

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Latest Résumé: https://github.com/TravisBrooks/MyResume

PROFESSIONAL EXPERIENCE

Senior Application Engineer,   **Aug 2018 – Feb 2021**
ALTSOURCE, Portland, OR (C#, SQL Server, JavaScript)

AltSource (https://www.altsourcesoftware.com/) creates custom software for a variety of customers, but primarily builds and maintains the software that runs the cellular network operator Consumer Cellular (abbreviated as CC). The work done for CC is large and very complex, with hundreds of code repositories talking to many databases with terabytes of data. It covers everything from sales via website, sales at retail outlets, call centers, order fulfillment at warehouses, monthly billing, reports, integration with partner business...everything needed to run a phone carrier. The software is broken out by domain into many git repositories/solutions, with at least 100 devs working on teams of 5-10 people that would focus on a set of related repositories. My work was primarily related to designing, building and maintaining the backend databases and web APIs related to the sale of devices and services. In a typical week my time would be spent 80% to 100% in C#, 0% to 20% in SQL. I have a sense of pride that millions of customers have exercised the code I've written, and will most likely continue to use it (however unknowingly) in a mostly unchanged state for years into the future.

Major accomplishments:
- My first task on the job was redesigning the database related to sales, creating the tables and stored procedures and wiring them up in the C# code.
- I was the primary dev on a rest API that handled promotional discounts for sales, I fixed bugs that had been present years before me and added many new features it was never originally designed for. This legacy code had a reputation for being cryptically written and required understanding quite a few different databases and applications to determine if a customer should get a discount for some action they are taking.

Senior Application Engineer,   **Oct 2011 – Feb 2018**
SITKA TECHNOLOGY GROUP, Portland, OR (C#, SQL Server, Reporting Services, JavaScript, Bootstrap, AngularJS, Python, PostgreSQL, Java)

Sitka (https://sitkatech.com) specializes in doing long term projects for third parties, usually web applications for federal and local government groups. During my almost 7 years there I worked full stack from database to front end on a number of different projects but primarily:

The Gemini project for Bonneville Power Administration. The goal of the project was to convert a desktop app that is used to track Fish and Wildlife projects into an ASP MVC web app (https://www.cbfish.org/) because many private contractors and tribal nations that need to use the application in order to get paid were migrating away from a windows environment. The desktop application and its database were in many cases the only form of documentation for rules that evolved for years about how contracts (and their billions of dollars in value) were processed by BPA. At last check this project included about 1.2 million lines of C# code, 900+ database tables, thousands of stored procedures, and integration with multiple databases and web services.

The Miradi project took an existing Java desktop app and connected it to a Python/Django web app (https://www.miradishare.org/). The web app transformed the ad hoc process of emailing a file around into a central repository and shared workspace for teams. This was my first professional experience with Python, and the first time I had worked on a Java app since C# came out.

The EETracker project is a website for internal use at BPA. It is used for budget planning for Energy Efficiency projects, a typical project would be an electrical utility doing some form of infrastructure improvement for efficiency in exchange for a reimbursement from BPA. The project was an ASP MVC app with an Entity Framework database first back end.

Senior Application Engineer,   Sept 2010 – Oct 2011
FIOS, INC., Portland, OR (C#, SQL, WCF, P/Invoke)

Fios was an Electronic Discovery business acquired by Document Technologies Inc shortly after I left. Electronic discovery relies on software that converts email and files from numerous different formats into searchable information for legal cases.
Major accomplishments:
• Fios's web customer portal, built with a RESTful server design and extensive use of jQuery in the client.
• Ported mission critical code from VB6 to C#.
• Repaired and extended the Fios data processing pipeline. The pipeline is a mixture of custom built and third-party software and databases that runs across thousands of servers converting files to plain text, PDF, and images. That's right, Fios had invented its own in-house cloud computing architecture before that was a thing you could just buy from Amazon or Microsoft.

Senior Application Engineer,   **May 2005 - Sept 2010**
BLUETECH LLC, Portland, OR (C#, SQL, ASP.NET, MVC, JavaScript)

XP shop; where all important coding must be done in pairs and all development is test driven. Their two core products were both based around the principle of bringing technology to the blue collar professional, BlueVolt (http://www.bluevolt.com) and FieldRanger (http://www.fieldranger.com). BlueVolt is an online learning management system focused on electrical manufacturers and distributors that want to offer product and career training to employees (e.g., electricians' required course work to maintain license certification). FieldRanger is an online service for creating work orders and dispatching them to mobile phones and devices, and synchronizing the work orders back into each customers accounting system for speedy billing.
Major accomplishments:
• Added new features every iteration, involving everything from new database tables on the back end to CSS on the front end and everything in between, and added tests to cover these features (NUnit, Selenium).
• Helped port many, many lines of legacy C# and T-SQL code into working, tested software.
• Helped handle technical support issues as they arose and was on the 24/7 support rotation.

Application Engineer   **Jun 2002 - April 2005**
NINATEK, INC. Portland, OR (C#, SQL, ASP.NET, .NET Remoting)

Ninatek designed and marketed a web-based business intelligence tool (NLighten) for analyzing "in the field" performance of durable products (primarily vehicles) by tracking warranty claims. NLighten was built using C# and could attach to either Oracle or MS SQL databases.
Major accomplishments:
• Using knowledge about how databases are built internally from my freshly minted Masters I designed from scratch the ROLAP analytic engine that provided all the charts and metrics displayed throughout NLighten. The engine was fairly sophisticated and high performance, capable of calculating hundreds of aggregations on modest hardware in 20 seconds or less. The individual calculations were abstracted into components that were processed uniformly, allowing parallel processing to be turned on/off by a config setting.
• Created an early detection system for products falling out of historical bounds for reliability. This was the most complex component built for the analytic engine; it was based on the 2002 best paper from the statistics journal Technometrics. I wrote the code with the cooperation of the paper's author, Dr. Huaiqing Wu.
• Contributed significantly to database design and SQL generation.
• Authored three provisional patents as the inventor.

Application Engineer   **Feb 2001 - May 2002**
THE CANOPY DATABASE PROJECT, Olympia, WA (VB, SQL)

Using an NSF grant I was able to research how software could benefit the environmental sciences, primarily forestry research in Oregon and Washington. This was part of a larger project involving researchers from The Evergreen State College, Oregon Graduate Institute (where I was earning my bachelors at the time), and OSU.
Major Accomplishments:
• Created a database and entry system for environmental metadata (e.g., tree counts). The information could be viewed in reports or exported as XML.
• Created an Excel application that added special metadata sheets to workbooks and sent the data to a database.

Research Fellow Jun 1998 – Dec 1998
US DEPARTMENT OF ENERGY, PACIFIC NORTHWEST NATIONAL LAB, Richland, WA (Java, Interactive Data Language)
This was part of the Collaborative Electronic Notebook project: http://collaboratory.emsl.pnl.gov/software/eln/
Major Accomplishments:
• Built a Java/CORBA component to login and authenticate users to the notebook.
• Built a web based visual analysis server for Nuclear Magnetic Resonance data. Depending on the data, the viewer worked in either 2D or 3D mode. The viewer was a thin Java applet, while the real work of file parsing and imaging was built with the Interactive Data Language.

EDUCATION
- M.S. Computer Science and Engineering (Data Intensive Systems) Oregon Graduate Institute. 2002
- B.S. The Evergreen State College. 1998

PUBLIC SPEAKING
May 30, 2009 Code Camp at Reed College: Haskell 101 - the basics of programming in Haskell.

TECHNICAL PROFICIENCIES
C#, T-SQL, JavaScript, HTML **Tools:** Visual Studio, SQL Server, Git, NUnit, Postman, ReSharper, Excel, debuggers (in Visual Studio and browsers) **Things I haven't used in a while:** Subversion, TortoiseSVN, Java, C++