

Jenna Lake 18303391

CSU33012 Software Engineering

Prof. Stephen Barrett

November 13, 2020

Biography of a Software Engineer



Peter Lake

US Pavement (2019 – present)

PRL Solutions (2001 – 2019)

Peter Lake is my father and the most influential person to me in my software journey. Although he has not been a software engineer his whole life, he has always had an interest in technology and software. Since we are so alike, he knew I would also have an interest in programming as well and involved me in his work and encouraged me to take computer science classes in high school. He was right, I loved it and now I am studying it in college, so I have him to thank for exposing me to a field I may not have come upon otherwise. He ran his own company, called PRL Solutions, an IT solutions company that he had up until 2019. He then took a job permanently as the IT Director for US Pavement, a paving company that he had previously had as a client.

Before PRL Solutions

Growing Up & Education

Peter grew up in and has since moved back to Gloucester, Massachusetts, USA, which is also my hometown. He went to Gloucester High School, the same high school I went to as well. This is where his interest in computers started in 1981, taking a class in BASIC using punch cards

for code entry. He then went to Syracuse University in 1982 to study computer science, where his first class was in LISP. But, after one semester he decided college wasn't the right path for him at that time of his life. He enlisted in the Navy and served as an electrician and a diver on a nuclear submarine from 1983 to 1989. Out of the Navy, he decided to go back to college. He attended night classes at Northeastern University in Boston (a school I was waitlisted for...) for five years until 1995. At Northeastern, he was studying for a Bachelor of Science in Business Administration, but still took lots of computer science related courses, such as classes learning C and C++. Again, though, he did not finish his degree because he had to move for the job he had at a chemical company. Between 1995 and 1997 he worked odd jobs and traveled the US.

In 1997, Peter wanted to pursue a career in computer science after having put it off for so long. Someone was willing to take him on, even though he had no degree and at this job he worked with Microsoft Access. He held this job until 2001 when he created his company PRL Solutions. During his MS Access job and the odd jobs before, he spent tons of time learning development technologies like .NET and SQL Server as well as computer infrastructure technologies like networking and server configuration, helping him make his way in the field without a degree.

Now, as of Autumn of 2020, Peter is going back to college again at Northeastern. Only this time, he is studying data analytics. He is determined to get his degree this time.

PRL Solutions Inc.

PRL Solutions was created and run solely by Peter, and he was the only employee of his company. He decided to work for himself because he wanted more freedom and time flexibility so he could raise his child, me. The next section outlines what he explained to me as his biggest or favorite projects he worked on in PRL Solutions.

General Electric

Peter's first big project was the work he did for GE. He was employed to create an application to analyze Defense Department contracts. He had to analyze structured and unstructured data to create an import routine into a normalized database structure. The application then allowed the company to easily access, analyze and report on the pricing and

revenue data. The data being analyzed came from several mainframe databases and text files and was put into a database on SQL Server. The front end was developed using Microsoft Access. One of the requirements he said that posed a challenge was to allow the government to easily access the same data and user interface that GE had. This was prior to the cloud technologies we have now. He made the choice to use MS Access so everything they needed could be packaged together and then sent off to the various government locations.

BioPharm

BioPharm Engineered Systems, or BioPharm, is a small biopharmaceutical equipment manufacturing company. Peter was hired to create an enterprise resource plan (ERP) application that allows them to run their business in the most efficient manner. This company has now grown to be a 100 million dollar company and they are still using his software. One issue he had in this application was working with and managing multilevel BOMs. He said navigating pricing and validation involving recursion was the biggest challenge he had to solve during this project. (Appendix A)

After an introduction to machine control programming with BioPharm, he developed a reporting software for BioPharm products using VB.NET. This is now being used by many pharmaceutical companies that have purchased BioPharm machines. This includes Moderna who are currently producing COVID19 vaccines on these machines using his software, which he is very proud of.

Although PRL Solutions is now technically closed, Peter still occasionally does work for them, maintaining both the ERP application and the machine control software.

Millipore

Another project he had was developing another machine control software for Millipore Corp. This he found interesting because it had to comply with multiple US and foreign government standards involving data security. It had multilanguage capabilities before that feature was common and these large filtration systems have been sold around the world.

US Pavement Services Inc.

US Pavement was Peter's biggest client at PRL Solutions. He had been handling most of the IT work for the company already, but they had grown to the point where they needed someone full time. They were impressed with his work and took him on full time as IT Director. In PRL Solutions, much like for BioPharm, he had developed an ERP system for the company (Appendix B). During all his software development for small businesses he had developed skills in all facets of information technology including hardware and server administration, which are the skills he utilizes now. As IT Director, he is still involved with software development but also oversees all aspects of IT infrastructure as well as advises on tech related issues in the offices. He is responsible for GPS tracking on machines, all cell phones, and any other technology that is used by the company.

Why I Chose Peter

My whole life, I have been really close with my dad. We are very similar in our personalities and interests. I've always looked up to him and he is a huge influence on my life in every aspect. I'm so impressed by the fact that he created his own company and was able to create the career for himself that he did, especially without having had a proper college education. Having always wanted to be like him when I grew up, I guess software was always in my future, even if he knew it before me. Maybe sometime I will make PRL Solutions into JRL Solutions.

References

Lake, Jenna R. "Peter Lake as a Software Engineer." 12 Nov. 2020. (Interview)

Appendix B

Job Manager - Double Click Proposal / Job to edit it

JOB + CUSTOMER MANAGER

187975 Warning: Job 187975 has 13 Nov-20 Expiry Date!

Customer

Far Corner Golf Course Inc

Site Address: 5 Barker Rd

Contact: Dion, Carolyn

Find KW Find Msgd Find JP Show All/Cr Load Cust. Info View Message **Cust Service** "On-Hold" Entry Date Activation Add Proposal Delete Proposal/Job CP Msgd

Job/Prop	#	Appx./Complete	Customer/Site Name
L 187975	<input checked="" type="checkbox"/>	M(1)	Far Corner Golf Course Inc 5 Barker Rd
L 186778	<input checked="" type="checkbox"/>	N(0)	Far Corner Golf Course Inc 5 Barker Rd
L 186776	<input checked="" type="checkbox"/>	M(3)	Far Corner Golf Course Inc 5 Barker Rd
L 186776	<input checked="" type="checkbox"/>	M(3)	Far Corner Golf Course Inc 5 Barker Rd
L 186804	<input checked="" type="checkbox"/>	N(0)	Far Corner Golf Course Inc 5 Barker Rd

Select a Company, Site, Contact to view related job information below. To find by Job or keyword click Find.
Hint: Right-Click for advanced filtering.
Note: "Show all" only shows first 2500 records

Outlook --> flynnoffice@comcast.net

Confirm + Copy Refresh Retrieve UnArchived, "Sent" Estimate Messages

Job Record sent changed by Hunt Exit Manager

S.Branch Woburn

JOB DETAILS

Job: 187975 Contract Date: 11/13/2020 Status: Active

Approval History Entered By Tim Murray Date 13-Nov-20 Activation Email Approved By Jamie Hunt Date 13-Nov-20 Unapproved By

Customer Info

Name Far Corner Golf Course Inc

Contact Carolyn Dion (978) 769-5172 Change Contact

Company Type Other PO #

Address

Add 5 Barker Rd

Add Buxford MA

Branch Woburn

MsgId

Eval.

Source

***Job Name** Additional Paving *Change Order *Compilation Level Level 0

***Sales Person** Bob Pappalardo Work Order Contract Date 13-Nov-20

***Estimator** Bob Pappalardo *Satisfaction Call Completed

Site Info

Site Name 5 Barker Rd Type Other

Add 5 Barker Rd

Add Buxford, MA 01921 JO Reviewed

Change Site QC

Job Details

REQ'S Scope 3 Links Dig Safe # Date PI

Drive Time PV CC CC Custom CC Custom CC Custom SUB \$ \$0

Directions (Site Info) MAPS Job Notes

PV CC CC Custom CC Custom CC Custom LP Custom SUB \$ \$0

Quote Status Next Follow up Date Approved T C

PV Job Order CC Job Order CF Job Order SC Job Order LP Job Order

Costing Info

Subj Avg Daily Pv Crew Size: 0 Pricing Info

Job Dates Avg Daily SC Crew Size: 0

(Material & adj)

Job Duration: Excavation: CF \$0 SC \$0 LP \$0

Total Cost: Other Fuel: \$0 M Services \$0

Profit: Misc & GL's: \$0

Rental Cost: Eq & V Cost: \$0.00

Margin: PM & Labor Cost: \$0.00

Costing Worksheet Pricing Calculator Manual

Billing Info

Type Lump Sum

Deposit Required 1/3 Inv Deposit Created Invoice Date Invoice Number 1/3 Invoice Amount Iny # Active Date Amt

Payment Terms 1/3 Paid Payments Total Payments \$0.00

Add/Edit/Delete Invoice UnInvoice

Save Job Info Detail Cost Report Scope Writer Job Order JC Worksheets Word Proposal Link to Master Remove Link to Master Misc Job Exp (POs and Invoices) PRINT CLOSE