Preston Percival

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Software Engineer

EMPLOYMENT

Tenaska Power Services Company, Arlington, Texas (June 2018-Present)
System Analyst (Software Engineer). Full stack developer responsible for maintaining and developing custom web application, desktop applications and data integration services utilizing DevOps practices such as continuous integration and deployment, as well as Git version control.

- Custom web app has thousands of monthly active users, both internal and external. App is written with Vue.js stack for frontend and .NET stack using C# for backend.
- Integrate major North American energy market data to and from proprietary data calculation engine/data warehouse. Process uses a .NET stack and stored procedures to integrate into Microsoft SQL Server database.
- Create design plans and build software to business user specifications that is maintainable and reusable.
- Use Microsoft Azure DevOps Server as a Git repository with build testing and release tasks to automate efficient and reliable code deployment.

Division of Student Affairs at Texas A&M University, College Station, Texas (Jan. 2016 – Jan. 2017)
Information Technology Service Desk Technician

Wilks Brothers LLC, Fort Worth, Texas (2015)
Information Technology Intern

PROGRAMMING LANGUAGES & TECHNOLOGIES

- Expert with C# programming language. Expert with Visual Studio IDE and Azure DevOps Server.
- Proficient with Javascript, Powershell and SQL programming languages. Technology proficiencies include Linux, Git, JSON, XML, HTML, CSS and Vue.js.
- Experience with C++, Java, Python, Haskell, TypeScript and PHP programming languages. Technology experience includes AngularJs, XAML, Apache, ActiveMQ, RabbitMQ and IIS.

EDUCATION & TRAINING

Texas A&M University, College Station, Texas
Bachelor of Science in Computer Engineering (Electrical Engineering Track) with Mathematics Minor – May 2018

Related Coursework: Engineering Calculus 1-3, Linear Algebra, Discrete Mathematics for Computing, Differential Equations, Linear Algebra of Differential Equations, Mathematical Cryptography, Mechanical and Electrical Physics, Engineering Basics 1 and 2, Programming Design Concepts in C++, Digital System Design, Data Structures and Algorithms, Signals and Systems, Operating Systems and Design, Electronics, Microprocessor Systems Design, Digital Integrated Circuits, Chemistry for Engineers

SKILLS

- Experience with machine learning, pattern recognition and modern cryptography, including Private and Public Key Cryptography
- Extensive experience in developing programs using Visual Studio and many other IDEs.
- Experience with software and firmware development cycles, as well as team-based development methods, such as agile development. Used tools such as burn-down rates to estimate development completion and organize teams. Worked with developer teams dealing with the conflicts and intricacies related to working in teams and developing on deadline.
- Extensive knowledge of Windows operating systems and domain networks including experience with DOS and PowerShell

PROJECTS

- Created and maintained a Raspberry Pi webserver to track of all household utility usage through a sensor network.
  - Installed Apache2 web server software, along with PHP module.

- o Created MariaDB (fork of MySQL) database and tables to store data.
- o Created HTML website hosted on Raspberry Pi connected to database via PHP with CSS formatting to display all of the data collected and created a JavaFX GUI to display utility data locally.
- Project to use machine learning and artificial intelligence to distinguish English letters.
  - o Built a neural network designed to be trained to recognize patterns in English alphabet.
  - o Neural network was trained using machine learning. At the end of the project, was able to distinguish alphabetical characters.
  - o Created JavaFX GUI to provide easy to use interface.
- Created [personal website](#) to host my resume and projects I have done (projects still in progress)
  - o Frontend written in TypeScript, HTML and CSS using AngularJS
  - o Backend written in ASP.NET Core MVC with RESTful API
  - o Data stored in MySQL database
  - o Originally, I was running the frontend and backend in Microsoft Azure cloud with the MySQL database running on AWS, but I transitioned to running it on my own Linux server with a domain registered through Google Domains.
  - o Address is prestonpercival.com with User=testuser and Password=testuser