dominicpalmer.org
github.com/dominicpalmer
dominic.palmer@outlook.com

Dominic Palmer

Mobile On Request
Location Brighton, UK
Age 27

Summary

An Imperial College Applied Mathematics MSc alumni and passionate software engineer, with 4.5 years experience spanning full SDLC software development, development team leadership, statistical programming and machine learning for research and development. An advocate of clean code, clean architecture and best practices.

Languages

Proficient C# (.NET 6, Core and Framework), Python, SQL Server, PowerShell
Familiar Modern C++ (GNU toolchain), JavaScript, HTML, CSS, LaTeX

Technical Knowledge

Concepts RESTful web APIs (OpenAPI), asynchronous programming, GUI development, Windows, Linux
Tools Git, Docker, Visual Studio, Neovim, Tmux, Bash/Zsh, VSCode, SMSS (including Profiler)
Services GitHub, GitLab, Azure DevOps, TeamCity, Octopus Deploy, Datadog, Jira, Confluence
Practices Agile, Scrum, Kanban, CI/CD, unit and integration testing, automation

Experience

Applied Systems Belfast, NI (Remote)
Software Engineer II, Development Team Lead *Nov. 2020 – Present*

- **Realtime Calculation Service (RCS)**: Full SDLC design and development of a set of microservices that calculate insurance premiums in real time according to pricing models specified by insurers. *(C#, .NET 6, ASP.NET Core, SQL Server, PowerShell, Dapper, DbUp, xUnit, web APIs)*
- **Web portal**: Built an internal web portal for management of insurance document templates. *(C#, ASP.NET Core, JavaScript, HTML, CSS, jQuery, Bootstrap, Aspose, MS Mail Merge)*
- **Applied Relay**: Regular contributions made towards Applied Ireland's flagship insurance management software, plus satellite web and desktop applications. *(C#, .NET Framework, ASP.NET, WCF, WinForms GUI)*

First Central Haywards Heath, UK
Statistical Analyst/Data Scientist *Jan. 2019 – Oct. 2020*

- **Pricing optimisation**: Built dimensionality reduction and clustering notebooks using principal component analysis, plus classification and renewal propensity models using a range of machine learning techniques. Identified a £2m (3%) underestimation of incurred loss. *(Python, Pandas, NumPy, scikit-learn, Matplotlib)*
- **Modelling framework**: Developed a template driven, GBM-based model optimisation framework. *(Radar, MS Excel)*
- **Web scrapers**: Built web scrapers that parsed and merged quote XMLs. *(Python, json, BeautifulSoup)*

Pre-2019 Brighton, UK
Statistical Analyst at InterAnalysis; Bartender at Mitchells & Butlers *Jul. 2016 – Apr. 2018*

Education

Imperial College London London, UK
MSc in Applied Mathematics; Distinction (76%) *Oct. 2016 – Oct. 2018*

↪ Research project: developed a genetic algorithm that simulates tumour growth in two and three-dimensional space, based on a mathematical model of evolutionary ecology (88%). *(C++, GoogleTest, GNU toolchain)*

University of Sussex Brighton, UK
BSc in Mathematics; First Class Honours (89%) *Sep. 2013 – May 2016*

↪ Key topics: linear algebra, calculus, set theory, combinatorics, cryptography, probability, statistics.

HarvardX: Harvard's Online Course Facility Online
CS50 Introduction to Computer Science; Distinction (93%) *Sep. 2017 – Jul. 2018*

↪ A 12 week course on data structures and algorithms in C, plus web development using Python, JavaScript, HTML and CSS. Built CLI based 'Mastermind' games in C++, Python and SQLite3 as a final project.

Cardinal Newman Sixth Form College Brighton, UK
A Levels; Mathematics (A), Physics (A), Chemistry (B), Extended Project (A)* *2011 – 2013*