dominicpalmer.org
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Dominic Palmer

Mobile On Request
Location Brighton, UK
Age 27

Summary

An Imperial College Applied Mathematics MSc alumni and passionate software engineer, with 3 years industry experience spanning full SDLC software development, data science, statistical programming and machine learning for research and development. An advocate of clean code, clean architecture and best practices.

Languages and Libraries

Proficient	C#, .NET Core/6, SQL Server, REST APIs, Dapper, DbUp, Swagger, MSTest
Familiar	C++, Python, JavaScript, HTML, CSS, STL, GoogleTest, xUnit
Other	GNU Make, NumPy, Pandas, Matplotlib, scikit-learn, LaTeX

Workflows

Tools	Linux, Windows, Git, VSCode, Vim, Tmux, Bash/Zsh (happy at the command line), Visual Studio
Services	GitHub, GitLab, Azure DevOps, Jira, Confluence, Rally, Slack, Teams
Practices	Agile, Scrum, CI, CD, unit/integration testing, international teamwork (UK ↔ USA)

Experience

Applied Systems — Belfast, NI (Remote)
Software Engineer — *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, SQL Server)
- **Web portal**: Built an internal web portal that provides management functionality for insurance document templates. (C#, ASP.NET Core, JavaScript, HTML, CSS, jQuery, Bootstrap)
- **Applied Relay**: Regular contributions made towards Applied Ireland's flagship insurance management software, plus satellite web and desktop applications. (C#, .NET, ASP.NET, WinForms)

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 underestimation of incurred loss. (Python, Pandas, NumPy, scikit-learn, Matplotlib, Seaborn)
- **ML framework**: Developed a template driven, GBM-based model optimisation framework using a platform called WTW Radar, which vastly improved model iteration time frames.
- **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 in C++ that simulates tumour growth in two and three-dimensional space, based on a mathematical model of evolutionary ecology (88%).

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*