

# John (Jay) Peter Crowley

## Senior Software Engineer



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Charlotte, NC

Experienced software developer professional with expertise in all phases of the software development lifecycle on multiple stacks. Experience managing projects and development teams. Excellent written and verbal communication skills. Experience with Azure cloud solutions. Expertise in Capital Markets Trading and Analytics Systems.

### Skills

#### Languages

Python

Java

C#

C++

HTML/CSS/Javascript

#### Frameworks

Azure

Quartz

.Net

Spring Boot

Angular

React

Kafka

Flask

Django

Android

#### Tools

Pycharm

IntelliJ

Visual Studio

MS SQL Server

Oracle

Git

Node/Npm

### Education

**Rensselaer Polytechnic Institute** Troy, NY  
Bachelor of Science in  
Computer Science

### Experience

**Kingsmen Software** Charlotte, NC May 2021 - Present

Senior Software Engineer

Senior Developer for Azure cloud software solutions consultancy.

#### **Avid Exchange, Inc.**

*Cloud Software Developer*

Implementation of Azure cloud Virtual Credit Card microservices to support payment processing. Integration of new Virtual Credit Card processor, on legacy on prem system and Azure services.

*Technologies:* C#, .Net Core, Azure, App Services, Function Apps, Service Bus, Terraform, Cosmos DB, SQL Server

**Bank of America** Charlotte, NC Nov 2005 - Sep 2015, Oct 2020 - May 2021  
London, UK Sep 2015 - Sep 2020

Director, Senior Engineer

Architect, Developer, and Team Manager in several projects in Capital Markets Trading and Analytics.

#### **Integrated Hedging System**

*Backend Developer*

Debt Hedging Program management system to support bank capital hedging, valuations and accounting. Replaces two legacy systems, while expanding functionality to new hedging programs. Designed and implemented a reporting system for valuation results on hedging effectiveness.

*Technologies:* Python, Quartz, AMPS, Flask and Microservices

#### **Back Office Funding**

*Full Stack Developer*

Development of Back Office Funding application, replacing legacy system. Provides automated and manual funding for world-wide accounts in multiple currencies, based on cashflow forecasts, integrating with 7 downstream payment systems. Processing roughly \$10B per day.

*Technologies:* Java, Spring Boot, Kafka, Hibernate, Oracle, Angular, and Microservices

#### **LIBOR Submission Calculator**

*Architect/Developer*

Primary architect and developer of LIBOR rate calculator and submission application. Supports regulatory mandated rate waterfall calculator, submission workflow and evidence management for LIBOR benchmark contributions.

*Technologies:*

Python, Quartz, and Flask

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## Previous Experience

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### **Bank of America (Cont.)**

#### **Oscar, Bond Structuring Analytics**

*Application Manager/Developer  
Manager, Director Promotions*

Manager of development and support team, 4 developers, for mortgage and asset backed securities structuring analytics tool, primarily for RMBS, ABS and CMBS sectors. Performs cash flow analytics of collateral and bond performance for pricing, yields and risk for original issue of bond sales. Expanded application into new markets, including complex Student Loan models, negative amortization and teaser payment RMBS, shipping containers, and others. Managed major projects to migrate application to platform independent architecture for Windows and Linux, integration into mortgage trading quantitative library.

*Technologies:* C++, MFC, Visual Studio 2010, Linux/G++, Roguewave Stingray

#### **QzFunding Trade Capture and Cash Forecasting**

*Tech Lead*

Scrum team lead, team of 10, for FX trade capture with straight-through processing to multiple downstream systems. Architecture and development of trade blotters, and global cash forecasting reporting tools. QzFunding is the target trade capture application on the Quartz trading platform for domestic and international trading desks in London and throughout Asia for Global Funding and Corporate Investments. Member of Corporate Treasury and Investments Quartz Core team, security approver and training group.

*Technologies:* Python, Quartz

### **Intercede, Inc**

Charlotte, NC

Director of Information Technology

Lead Architect and Developer of misconduct reporting tool and case management system. Product allows clients to provide employees, contractors and vendors with safe, anonymous reporting tool with management tools and analytics for HR, Legal and Executive teams to manage liability risk and resolution processes.

*Technologies:* ASP.Net, C#, MS SQL Server 2000

### **Upper Echelon LLC**

Charlotte, NC

Partner

Architecture and Development of custom business software solutions to a variety of clients. Solutions utilized a variety of different technology platforms including Microsoft's C# and .Net Platform, Java, Web and XML technologies.

### **Approach, Inc.**

Valhalla, NY

Senior Consultant

Senior Developer for Microsoft Solutions Provider for outsourced business software solutions. Client/Server and Web Based N-Tier projects with durations between 1 and 12 months. All projects used cutting edge Microsoft solutions.

### **IBM Corporation**

Yorktown Heights, NY

Senior Associate Programmer

Application implementation for desktop deployment and support systems for IBM Research division.