MIKE BELIE

SENIOR SOFTWARE ENGINEER

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Diligent software engineering professional with over 20 years of experience in designing and implementing software solutions. Skilled in object-oriented programming, web/desktop development and database technologies. Dedicated to leveraging software to solve problems and improve processes.

EXPERIENCE

FEB '18 - PRESENT

Principal Software Engineer | NOVO Engineering, Vista, CA

- Developed a collision detection feature that allows surgeons to visualize and avoid collisions between a patient's spinal anatomy and surgical hardware while developing screw plans for spinal surgeries. Improved patient safety and surgeon confidence in screw plans
- Enhanced C# image processing/machine vision features used by an automation robot to leverage parallelism which drastically increased product performance
- Provided software architecture and development for various client projects
- Built HMI software for various robotics projects using both thick & thin client applications
- Added transient fault handling to a robot product which prevented costly workflow disruptions
- Created an imaging segmentation routine used to differentiate various aspects of plant-callus anatomy
- Integrated a client's production robot software with PAC via OPC/UA
- Produced various web components using LitElement
- Balanced simultaneous client workloads
- Promoted from Senior Software Engineer to Principal Software Engineer

MAR '12 - FEB '18

Software Engineer Advisory | Symitar (Jack Henry & Associates), San Diego, CA

- Developed product features for Symitar's flagship product, Episys Quest
- Performed unit and automation testing
- Resolved product defects
- Designed and implemented an encrypted flight recorder for use in postmortem debugging of Symitar software
- Brought software engineering best practices to the automation team during an 18 month volunteer engagement
- Implemented a custom automation API using WCF that allowed automation frameworks like CodeUI to drive the product GUI. This resulted in extreme increases to test automation speed
- Designed and implemented a test automation framework that allowed dynamic tests to be written in XML. Allowed for the creation of 25K+ automation tests in a 12-month period
- Co-authored managed-coding standards and unit testing best practices for the UX group
- Promoted from Senior Software Engineer to Software Engineer Advisory
- Received employee of the quarter in Dec 2017

JUL '04 - JUL '13

Senior Software Engineer | Order One Software, San Diego, CA

- Produced an XML driven user interface engine written in C# that allowed a client to rapidly produce custom web form mash-ups of MSCRM fields from disparate entities. Permitted the client to visualize data in ways not otherwise supported in MSCRM
- Created a CD based (no install footprint) application in MFC/C++ for testing medical hardware. Used on the production floor of a Fortune 500 corporation.
- Implemented a photo kiosk application in .NET with card reader integration, image processing, and custom form controls
- Developed a financial calculator used by a client to rapidly prototype and visualize the various financial aspects of property leases

JUL '11 - MAR '12

Senior Consultant | Hitachi Solutions, Irvine, CA

- Created a validation tool in MSCRM that allowed a client to verify customer and product information, real-time, against their MSAX-ERP system. Turned a time consuming, multi-step, manual process into an automated near-instantaneous one
- Built a deal flow/pipeline tracking tool that could be installed as a module in any MSCRM instance. Allowed administrators to define workflows for end users to follow and interact with via a GUI ribbon. User interactions were captured and used to drive subsequent workflow

JUL '00 - JUL '04

Software Contractor | Multiple Companies, San Diego, CA

- During this period, I held various full-time and contract positions developing web and desktop applications
- Taught a course at Learning Tree University called Advanced Web Animation in Flash: Interactivity with Actionscript

EDUCATION

JUN '01

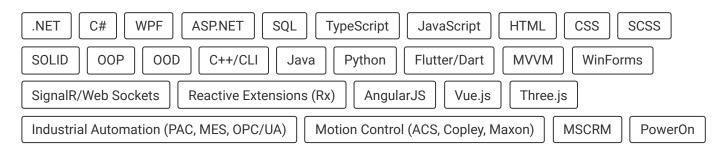**BA, Interdisciplinary Computing and the Arts Major**

University of California San Diego, San Diego

| Relevant Coursework | Computer science | Series of science and engineering calculus courses |

Computer-generated art (created a fractal generator in Lingo)

Game programming (wrote a version of the classic Space Invaders game)

SKILLS

.NET | C# | WPF | ASP.NET | SQL | TypeScript | JavaScript | HTML | CSS | SCSS

SOLID | OOP | OOD | C++/CLI | Java | Python | Flutter/Dart | MVVM | WinForms

SignalR/Web Sockets | Reactive Extensions (Rx) | AngularJS | Vue.js | Three.js

Industrial Automation (PAC, MES, OPC/UA) | Motion Control (ACS, Copley, Maxon) | MSCRM | PowerOn

SymXchange PowerShell AWS Azure OpenCV VisionPro Windows Services

Web Services REST WCF Web Components LitElement GRPC Protobuf FBE

Unit Testing CI/CD UI Automation CodedUI UIA Agile Front-end/Frontend

Back-end/Backend Web Applications Desktop Applications