ROBERT LONG

Senior Software Engineer

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SUMMARY

With over eight years in software engineering, I've been transforming complex challenges into simple, high-performance solutions across industries like stock trading, education, control systems, and mortgage. Right now, at CoreLogic, I'm writing applications that improves the underwriting process. Using C#, Python 3, HTML5/ECMA6/Angular, and WPF, I build scalable systems that enhance efficiency and delight users. I'm all about embracing tough problems head-on, constantly learning, and applying first-principles thinking to create impactful outcomes.

EDUCATION

09/2013 - 06/2016

Bachelor of Science, Computer Science

UC Irvine

EXPERIENCE

08/2021 - Present

Irvine, CA

Senior Software Engineer

CoreLogic AutomatIQ FactChcek

FactCheck innovates mortgage underwriting through advanced automation. Using carefully tuned AI models, we process massive volumes of documents—regardless of fidelity—with unmatched accuracy and speed. Our exceptional income calculations enhance lenders' efficiency and set new industry benchmarks.

- Transformed the integration of FactCheck with the ADC team's KTA OCR system from a slow, unreliable process that required frequent maintenance into a highly efficient, always-available system. Carefully designed and implemented features such as retries, simplified tracking, and streamlined troubleshooting with the foresight to save time from the outset. This overhaul significantly improved uptime, reduced transaction processing times to milliseconds, and ensured seamless, dependable operations.
- Led and architected the integration with the Ocrolus OCR service, extending support to over 50 tax forms. Designed the system to be easily extendable, simplifying the addition of new forms and enabling everything to run offline for increased efficiency. Facilitated ease of issue reproduction by adding ample samples and implementing comprehensive unit tests, allowing other developers to quickly understand the system and contribute effectively. Developed a mechanism that automatically identifies main documents with sub-documents, allowing forms to intelligently request and join related documents. Resolved ambiguous cases by ranking them based on smart criteria, enhancing the system's reliability and maintainability. Ensured the architecture allows for easy future integration with other third-party services, promoting scalability and adaptability.
- Eliminated the need for complex troubleshooting setups by enabling the Ocrolus import process to function completely offline, without requiring multiple application services or Redis configurations. This allowed developers to reproduce and resolve issues locally with ease. Introduced strategic entry points where inputs can be supplied directly to the import process, bypassing numerous steps and preparatory work. This enabled developers to jump directly to the relevant processes, saving 20–30 minutes, and sometimes hours, of setup time. These enhancements accelerated issue resolution, saving hours per week in troubleshooting time and greatly improving developer efficiency.
- Supported the ADC OCR team by building tools to assist in configuring, setting up, and training their OCR service, significantly improving their efficiency and reducing manual effort.
- Developed an intelligent document classifier that routes documents between a simple queue and a complex queue. By identifying simple documents that do not require the resource-intensive KTA OCR process, these documents are processed separately, bypassing the expensive OCR route. This optimization significantly reduced processing time and lowered operational costs, improving overall system efficiency without compromising accuracy.

10/2020 - 08/2021

Anaheim, CA

Software Engineer

Extron

- Develop and maintain new features for desktop applications using .NET WPF C#, including Toolbelt, Global Configurator Pro, and Global Scripter, significantly improving functionality and user experience.
- Actively contributed to design reviews, code reviews, and daily stand-ups, fostering a collaborative environment and promoting best practices.
- Enhanced internal tools, boosting productivity for both the engineering and product development teams.
- Developed a foundational library utilized by over 50 developers across five major projects monthly, streamlining development processes and promoting code reuse.

10/2020 - 10/2024

Remote

Software Developer & App Support

Pitzer College

- Resolved complex technical issues for Registrars, IT, Financial Aid Services, and the Application & Support Team using C# and Python, significantly enhancing system reliability and efficiency across multiple departments.
- Achieved an exceptional 99.8% system uptime by implementing advanced monitoring tools and proactive maintenance procedures, ensuring seamless operations and virtually eliminating downtime.
- Developed a robust automated user account management system integrating Active Directory (AD), Workday, and CX, streamlining the onboarding process for HR and IT. This automated account creation for incoming staff and students, reducing account setup time by 80% and boosting operational efficiency.

EXPERIENCE

09/2016 - 10/2020

Claremont, CA

Software Developer & App Support

Pitzer College

- Engineered and implemented custom applications and systems to solve problems for staff, faculty, and students, based on requirements gathered through collaboration with managers and directors, boosting operational efficiency across departments.
- Eliminated critical system outages that previously halted the registration systems of all five Claremont Colleges during peak enrollment, preventing thousands of students from registering for classes. By carefully identifying the software issue that caused the database to run out of available connections, and thoroughly refactoring the code for simplicity and efficiency, I eliminated the downtime. This improvement had a positive impact on students, faculty, and registrars.
- Maintained, troubleshot, and traced issues on the student portal related to Jenzabar, utilizing Linux Bash, Perl, Java, and Informix. Ensured seamless and uninterrupted access for thousands of users.
- Transformed paper-based processes by creating electronic form solutions using Angular, Python, and C#, reducing processing times from weeks or months to hours or days. Achieved a 96.7% engagement rate and made the data collected available across all departments.
- Developed over 8 custom application solutions using C# and Python, enhancing efficiency for Registrars, IT, HR, and Financial Aid Services, Students, and Faculties

05/2014 - 02/2015

Glendale, CA

Software Engineer

ECN2 Technologies, LLC

A cutting-edge trading platform that empowers users to trade financial instruments efficiently. It offers customizable tools and seamless connectivity to multiple trading destinations, greatly enhancing the trading experience.

- Significantly contributed to the development of a brand-new suite of high-performance applications using the WPF framework, crafting a responsive, modern, and powerful interface that enabled users to trade financial instruments with ease. Leveraged advanced techniques like triggers, animations, and sophisticated easing effects to create an intuitive and visually engaging trading experience for users.
- Engineered highly customized and interactive user controls with WPF XAML, utilizing advanced styles and features to enhance user experience. Achieved a 400% reduction in interface load times and improved overall platform responsiveness.
- Integrated critical applications with back-end services via RESTful APIs using NancyFX, connecting to multiple databases including MongoDB and Microsoft SQL Server. This effort accelerated data retrieval by 30% and ensured seamless connectivity across trading destinations.
- Integration with other applications using RESTful API NancyFX to interface with back-end services as multiple databases including mongodb and microsoft sql
- Authored and maintained comprehensive documentation of software architecture on WordPress, creating a valuable resource that reduced new developer onboarding and promoted efficient knowledge sharing.

SKILLS

C# | .Net 6+ | XAML | HTML5 | ECMA 6 | Python 3 | RESTful architecture | Microservices | Linux | Bash | Test Driven Development | Object-Oriented Programming (OOP) | Functional Programming | Jenkins | Tesseract OCR | Computer Vision | GCP | C++ | Java | CGI/Perl | Anthos | Redis | Reactive Programming | Microsoft SQL

RELEVNAT COURSESWORK AT UCI

Compilers and Interpreters

Computer Game Development

Embedded Systems & Software

Information Retrieval

Introduction to Artificial Intelligence

Parallel and Distributed Systems

Projects in Operating System Organization