BENJAMIN KNOX

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Software Engineer

Innovative professional with a proven history of producing efficient, effective software in an effective and productive manner.

PROFESSIONAL EXPERIENCE

PHYSNA - FULL TIME   **Oct 2017 – Aug 2023**

Software Engineer

Developed front-end code with React and Next.js on Physna's enterprise application and later on thangs.com. Used industry best practices, including server-side rendering, Test-Driven Development (TDD) with Jest, and component tests in Cypress. Employed Redux and Storeon for application state management, implemented CSS in React with JSS and Emotion, and orchestrated authentication with OAuth. Employed Three.js to render geometric representations of diverse 3D models.

Developing solutions for creating comparisons of differing 3D models. Daily work on web application technologies: Next.js, React, Node, Linux, and MySQL. Creating a scalable system using Google Cloud Platform. Working with a team of developers all using Git to manage the code. Creating utilities in Bash for data analysis and for creating self-healing architecture. Use Docker for development and CircleCI for production deployment. Worked with scalable systems using GCP.

- React, Next.js, Server-Side Rendering
- TypeScript, JavaScript
- CSS with JSS, Emotion
- Test-Driven Development (TDD) with Jest, Component Testing with Cypress
- Redux, Storeon
- OAuth
- Node.js, C#, python
- Postgres, MySQL, mongodb
- Google Cloud Platform
- Git, Github
- Bash
- Docker, CircleCI
- Three.js
- 3 years Remote Work

HANDY HOME GUYS - CONTRACT   **Jun 2017 – Oct 2017**

Software Developer

I undertook the development of a WordPress website for our client, working in close collaboration to create a platform tailored for marketing their construction and landscaping services. This project involved utilizing WordPress, PHP, and JavaScript to fulfill the customer's requirements, effectively conveying the company's capabilities to prospective clients. Additionally, I crafted custom WordPress plugins to augment the built-in content management functionality, ensuring a seamless and tailored user experience.

- WordPress
- jQuery and JavaScript
- HTML
- Project Management
- Custom plugin and template development

CLEARVOICE – FULL TIME   Sep 2015 – Aug 2016

Software Developer

Developed solutions using Angular for the frontend and Ruby for the API backend. Created and enhanced features that facilitated workflows for companies engaged in outsourcing marketing and for freelance content creators. Operated within a SCRUM environment as a member of a team comprising 6-7 developers. Maintained regular communication with in-house content creators to identify opportunities for software improvements. Additionally, contributed to the development process by creating unit tests to ensure software maintainability for both backend and frontend developers.

- Developed with AngularJS on the frontend
- Worked with jQuery
- Utilized Ruby on Rails REST API
- Employed Pivotal for project management
- Collaborated within a SCRUM team

CLEARCALL SOLUTIONS - CONTRACT   Feb 2015 – Aug 2015

Software Developer

Software development role primarily focused on constructing reports for Business Intelligence in MySQL for Tableau data sets. Additionally, maintained WordPress and static HTML websites, implementing Google Analytics and other Google products for marketing purposes. Developed and maintained C# applications responsible for retrieving data from SOAP APIs and queuing calls into ShoreTel ECC. Also, oversaw the upkeep of a legacy PHP application used for reporting and interfacing with critical company data.

- Maintained WordPress Security
- Worked with WordPress Themes
- Solved problems with Legacy PHP and Laravel framework
- Created interfaces with HTML/CSS and Bootstrap
- Developed in a WIndows 7 environment
- Worked on applications in C#

DUNESPORT - CONTRACT   Feb 2014 – Aug 2014

Developer / DBA

I held a comprehensive IT role that encompassed a wide range of responsibilities. These included web application development, network troubleshooting, and the crucial task of maintaining the customer database in MySQL. Additionally, I was tasked with resolving issues in a problematic inventory management system, which comprised two separate systems requiring integration. I successfully revamped a malfunctioning Lead Management System, managed the SEO for a front-end website, and executed email campaigns aimed at generating an increasing number of leads for our sales representatives.

- Migrated website from an in-house server to a Rackspace cloud server, transitioning from Ubuntu 8.08 to Ubuntu Server 13.04
- Utilized MySQL Views to seamlessly integrate two inventory management systems into a unified system, enabling the removal of deprecated code
- Initiated the migration process from a legacy codebase to the Laravel MVC framework, initially implementing Laravel IoC within the existing legacy codebase
- Developed multiple standalone AJAX mini applications to streamline the interface with the aging inventory management software.
- Implemented a comprehensive backup strategy, storing the codebase on a local in-house server and utilizing GIT for source version control
- Commenced the implementation of SEO best practices to enhance website rankings

SAIFE INC. - FULL **T**IME   **Apr 2013 – Jan 2014**

Developer

I held a focused role responsible for developing web applications within a collaborative team environment. I leveraged a diverse range of technologies to create applications, websites, and functionalities tailored to customer specifications. My contributions spanned numerous projects in a fast-paced Agile development environment. I primarily concentrated on the front-end aspects of projects, which included the design of websites featuring multiple user interfaces. I also spearheaded the implementation of new applications aimed at enhancing code readability, simplifying development, and fortifying system reliability.

- Deployed Python Django web app on Linux Debian and CentOS
- Utilized PostgreSQL, with Python Django framework built-in Object-Relational Mapping (ORM)
- Employed Hibernate and PostgreSQL database migration scripts for managing database migrations
- Authored unit tests in Python for the Django web app
- Developed a document management portal intended for presentation to Intel Press, aimed at replacing the Gotomeeting publication review process
- The aforementioned document management system was constructed using the Python Django web framework
- Followed an agile methodology with weekly Scrum meetings
- Generated UML class, sequence, and use-case diagrams as part of the initial planning process
- Implemented jQuery and long polling to facilitate a seamless multi-user feedback system
- Played a pivotal role in enhancing the user interface of a device/client management web application
- Leveraged the Java Spring MVC Framework to create an HTTP REST API for MVCR Backbone.js, using JSON objects
- Utilized Maven for building integration with vFabric for test development
- Employed GIT for source version control and Gerrit for code reviews conducted by senior engineers
- Utilized Spring Tool Suite (Eclipse) for development within the Java Spring framework
- Applied jQuery, Bootstrap, and LESS for responsive design to ensure compatibility with mobile devices and tablets
- Utilized HTML5 and CSS3 to create highly standard and cross-browser compatible software
- Developed Watir-webdriver test cases for Quality Assurance

360 EDUCATION SOLUTIONS – FULL **T**IME   **Feb 2012 – Apr 2013**

Developer/DBA

I offered specialized expertise and leadership that steered the development of a multifaceted project. I proficiently diagnosed technical issues, identified failures/errors, and uncovered vulnerabilities within the existing security system. These challenges were promptly and efficiently addressed, resulting in enhanced stability and resolution. Furthermore, I implemented a strategic shift by replacing the in-house email system with an outsourced solution, significantly improving delivery rates and positively influencing the bottom-line. Additionally, I assumed the role of leading test development, meticulously selecting a code editor, and establishing the production server for seamless operations.

- Replaced in-house email servers with a Python email server, employing an email service/relay to engage a broader audience through email marketing campaigns
- The Python-based software utilized Python smtplib to relay 700,000 emails each month through sendgrid.com
- Emails were sourced from a MySQL email database containing 8 million records, collected through an in-house public sector website scraping tool
- Created a web utility using PHP, HTML, Bootstrap, and CSS for managing email campaigns sent via SendGrid
- Utilized SendGrid API to gather analytics and presented valuable insights using jQuery Highcharts to generate reports on email campaign status
- Routed email campaigns to landing pages to generate sales leads, which could then be sold to prospective buyers
- Maintained an in-house web application designed for non-technical users. The application used AJAX with PHP, XHTML, and CSS
- Successfully migrated the in-house system from a Windows, Apache, PHP, and MySQL environment to a LAMP (Linux, Apache, MySQL, PHP) setup
- Created a multisite engine using the PHP MVC CodeIgniter Framework to facilitate lead generation into a MySQL database

Benjamin Knox · **(513) 658-0884** · **bknox.contact@gmail.com**

PROCERIUS, INC. - FULL TIME   **2008 – 2012**

Developer/DBA

I took on the role of coordinating various website development projects, where I held oversight over all aspects of website operations, encompassing design, development, updates, and additions. My responsibilities extended to a wide range of project-related tasks, where I prioritized efficient time management to meet all deadlines effectively. I played a pivotal role in architecting the database schema for website projects and diligently programmed each website to align with precise customer specifications. My particular focus was on creating an appealing user interface that seamlessly presented dynamically displayed information, ensuring widespread compatibility across various platforms and devices.

- Utilized CentOS, MySQL, and Apache for the deployment of a web application
- Led development efforts for squashCORE.com, a multimedia athletic community website
- Employed CodeIgniter to code the community platform, enabling squash players to view videos of matches uploaded by a client system known as SquashCORE
- Created a relational database using MySQL to support the community website
- Conducted development in a LAMP (Linux, Apache, MySQL, PHP) environment, working remotely
- Embedded videos using JWPlayer and implemented dynamic viewing rights for users, allowing them to set privacy preferences for their videos
- Programmed jhrefund.com, a website providing secure tax refund status information for Jackson Hewitt Tax Service customers, this involved PHP, MySQL, and AJAX with jQuery
- Developed the tax refund status web page and integrated it with a PBX system developed by Procerius Inc
- Utilized HTML, CSS3, and jQuery in the creation of the company website, digitalavant.com
- Utilized Dreamweaver for PHP development and XAMPP for application development on the Windows platform