✉ jeremy.w.barnes@gmail.com
☏ (818) 203-1393
⌂ Studio City, CA

linkedin.com/in/jeremywbarnes 🔗
jbpkp07.github.io/Portfolio 🔗
github.com/jbpkp07 🔗

Jeremy Barnes
Software Engineer

Objective

Software engineer with 4 years of experience in software development and 10 years of experience in systems engineering. Looking to transition into a mid-level software development role on a team of highly-driven engineers to learn, provide mentorship and problem-solve in a collaborative environment.

Experience

Software & Systems Engineer @ Spafax Inflight Entertainment

March 2015 – Present / Hollywood, CA

- Operated as principal developer of an internal, bespoke software application (C#/PowerShell/FFmpeg) that provides a fully automated audio encoding and delivery pipeline, reducing the overhead cost of 2 employees. Advanced algorithms were developed to match employee-scheduled audio content with 2 million unique audio source files, with a long-term observed accuracy rate of 99.7%.
- Currently developing a full-stack Electron.js application to provide an internal asset management system to assist employees with better organization and views of a distributed repository of 6 million video file assets.
- Completed successful video production workflow optimizations through network-wide developments including data storage throughput improvements and software development that automates the movement of files through the production pipeline.
- Key contributor towards current cloud architecture design iterations (Azure) to replicate on-premise video production workflows in the cloud in adherence to specific security guidelines mandated by MPAA and independent major studios that supply source content.

Software Application Support Engineer @ Spafax Inflight Entertainment

July 2011 – March 2015 / Orange, CA

- Key contributor to the relocation and redesign of a video post-production datacenter for an office move from Orange, CA to Hollywood, CA. Redesign was in strict accordance to MPAA security guidelines with improved data transfer performance by upgrading an existing 1Gb network to a 10Gb network.
- Provided day-to-day support for an internally-developed enterprise web application. Responsibilities included QA testing, capturing changing requirements from business units and writing custom SQL queries to generate reports for senior management using Microsoft SQL Server Reporting Services (SSRS) and SQL Server 2008.
- Collaborated with technical leadership to transition the video post-production lab using legacy tape-based workflows to a fully digital facility capable of preparing films for content-delivery to any platform.
- Managed and mentored a junior team member throughout several projects related to the support of day-to-day IT operations for 2 internal networks, 60 servers, and 100 computers.

Software Engineer @ DataPath, Inc.

November 2006 – June 2008 / San Diego, CA

- Contributed throughout the entire Software Development Life Cycle for the Marine Corps VSWAN program. Collaborated with PhD scientists to successfully develop and integrate telemetry algorithms for unmanned military aircraft, using Java and the Eclipse development environment.
- Other software development contributions included using JasperReports and MySQL to provide a significant upgrade to the reporting capabilities of DataPath's MaxView network control software.

Information Systems Intern @ Cvent

June 2005 – August 2005 / Washington DC

- Responsible for the development of an IT asset management system including participation in design review meetings, development of an ERD with subsequent Microsoft Access implementation, database population of assets and writing version control documentation.

- Provided software and PC hardware support for employees, adding and removing PCs on the domain through Microsoft Active Directory, creating optimized Symantec Norton Ghost PC images and assisting with day-to-day operations of a 100-computer internal network.

Network Systems Support Intern @ Xerox Corporation
May 2002 – August 2003 / Monrovia, CA
- Supported day-to-day IT operations for end-users and network administrators on a network with 300 users. Responsibilities included diagnosing and repairing internal PC hardware, providing software support for end-users and supporting software audits across local network computers.

Education

UCLA Extension
2019 / Westwood, CA
Full-Stack Web Development Bootcamp

Bucknell University
2001 – 2006 / Lewisburg, PA
Bachelor's Degree, Computer Science

Flintridge Preparatory School
1997 – 2001 / La Cañada, CA
High School Diploma

Technical Skills

Programming Languages
C#, C++, Java, HTML, CSS, JavaScript (ES5-ES8), TypeScript, SQL, PowerShell, Windows Batch

Databases
MySQL, SQL Server, MongoDB, Azure Cosmos, Firebase

Libraries & Frameworks
React.js, jQuery, Express.js, Electron.js, Sequelize, Mongoose, Socket.io, Bootstrap, DataTables, Mocha.js, Chai.js

Tools & Platforms
Git, Node.js, .Net, Heroku, Azure

Integrated Development Environments
Visual Studio, Visual Studio Code, Eclipse

Systems & Miscellaneous
TCP/IP & VLAN network configuration, firewall configuration, network security, high performance & high reliability storage systems, Windows Server administration, SQL Server administration

---

Projects

Audio Automation Software
C# multi-threaded console application that algorithmically searches a repository of 2 million audio source files for employee-scheduled selections and encodes them in parallel across all server CPU cores. Fully automated with 99.7% accuracy.

GifTastic
Fun front-end web app built with HTML, CSS, JavaScript, and jQuery that queries the Giphy API to retrieve gifs with additional features.

Delight
Full-stack web application built with HTML, CSS, JavaScript, Node.js, Express.js, Sequelize, MySQL, Socket.io and bcrypt that hosts a client web page that provides a social media spawn with a chat feature built from scratch (with a little help from socket.io!).

RatMaze
A Typescript and Node.js application that does a depth-first search to solve a randomly generated maze. Planning to implement Dijkstra's algorithm to find the shortest path. Fun!

Interests

Engineering (any discipline), computer games, disc golf, backgammon, burritos