Andy Kish

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SUMMARY

Technical leader, engineering polymath, and systems architect with proven experience scaling products from inception to millions of users. A rare combination of deep technical knowledge across the entire technology stack; from bare metal to cloud infrastructure to user experiences, and everything in between.

SKILLS

Frontend Web Development

HTML, CSS, LESS, SASS, JavaScript, TypeScript, CoffeeScript, React, Next.js, Vue, Svelte, Koa, Socket.io, D3, Three.js, Chart.js, Chai/Jest/Mocha, So. Many. More.

Backend Web Development

API development, Node.js, Rust, Python, PHP, PostgreSQL, MongoDB, MySQL, Redis/Valkey, Memcached, NGINX, ElasticSearch, Cassandra, JWT, oAuth, Passkeys

Mobile Apps

Android, Kotlin, Java, React-Native, Cordova, Capacitor, Google Play Store, XCode, iOS

DevOps

Continuous Integration, Blue/Green Deploys, Docker, Ansible, VM/container orchestration, Proxmox, AWS, Cloudflare, Azure, Hetzner, Digital Ocean, Github Actions, Chat Ops, Grafana, Developer Environments, OPNSense, Shell Scripting, Linux, Windows, OSX

Hardware

Embedded Linux, Embedded Rust, FreeRTOS, Edge AI, IoT interfaces (CoAP, MQTT), Mobile app interfaces (WiFi, Bluetooth, NFC), Electronics/PCB design, 3d Printing, CNC, CAD/CAM, Overseas manufacturing

AI, Data Science

Agentic workflows, TensorFlow, PyTorch, ONNX, Coding automation tools, Jupyter Notebooks, autoregression based LLMs, AWS SageMaker, Rekognition

EXPERIENCE

Director of Technology

2020-08-30 - Present

SkyBell Technologies Inc

At SkyBell I've been able to truly exercise my full stack skill-set, all the way down to the hardware. While most of my work has centered around web technologies (AWS ECR/ECS, Fargate, EC2), I've been able to make great contributions to the other facets of the SkyBell platform including firmware (Buildroot embedded Linux running on ARM and MIPS) for our doorbells and with our mobile apps (Android specifically, Kotlin, Java) used to interact with them. While most of the SkyBell stack is in Node.js, a language I am an expert with, I have been able to further develop experience with other languages like Rust, Erlang, and Elixir that parts of the SkyBell platform are written in.

- Architected and scaled IoT platform supporting 1M+ devices, reduced infrastructure costs by 80% while maintaining 99% uptime
- Built internal chatbot tool that reduced average ticket resolution time and became the primary interface for CS team's daily operations, replacing legacy web application
- Managed relationships and technical oversight for distributed development teams across 6+ countries, conducting code reviews, and guidance for outsourced development work

Senior Software Engineer

2019-12-01 - Present

Gun.io Technical Talent

Since the late 2019, I've been freelancing with Gun.io, a fantastic boutique technical talent agency. I've been able to help out with projects of all different kinds, with new emphasis on mobile apps (both iOS and Android) using development technologies like Cordova, and React Native (using Expo.io). Often I'll be hired for a specific role or technical development task, but then be requested to be kept on to further improve areas like dev-ops, monitoring, and infrastructure scaling. While I am still part of the Gun.io talent pool, I have not taken any contacts with them since July of 2020.

- Data Modeling
- Mobile Apps

Head of Engineering

2016-02-01 - 2019-12-01

Wirkn Inc

Hired as a Senior Developer, I quickly proved myself by leading a complete re-architect of their Node.js backend so it would be much more scalable, robust, fault-tolerant, and completely AWS based. I implemented an entire devops continuous integration workflow that automates our AWS deployments in a "blue/green" fashion using Jenkins. I've also setup a customized ELK stack for our own metrics and analytics. This is in addition to the other engineering team leadership work I do like, hiring new developers, code reviews, technical and security reports, and ensuring the overall technical health of the company.

- Team lead
- Data Architect

Full-Stack Senior Developer

2014-01-02 - 2015-08-30

Tribal DDB

I was hired on a contract basis to maintain and enhance McDonald's award winning "Our Food, Your Questions" campaign (Node.js, MongoDB), after my contract was up Tribal/DDB came to see me as a well-rounded developer and offered me a full time web developer position. At Tribal I got to work with even more large well known brands (McDonald's, Subaru, Canadian Tire, Google ... many more) building everything from simple social media plays, to complex Arduino or Electric Imp based "connected objects" hardware projects. I also worked with a variety of languages and platforms, it was a rewarding new challenge every other week.

- Implementation of many large recognizable brands digital strategy.

Full-Stack Senior Developer

2012-09-01 - 2013-11-30

Viafoura

Originally hired as a front-end JavaScript developer, I quickly began to fill gaps in areas well beyond just the client side. I was involved in almost every aspect of the IT operations; from back-end (a mix of PHP frameworks, Node.js and Python), to sysadmin (in the Amazon cloud), to QA (building a rudimentary Jenkins CI system) and beyond. I wrote and documented most of the formerly used (as of Nov. 2013) login integration and data migration (users and comments) code and procedures.

- Great exposure to the heart of Canadian start-up culture
- Incubated in the Ryerson DMZ
- Migrated entire CBC.ca comment system to Viafoura

Front-end Web Developer

2012-01-02 - 2012-08-30

The Globe and Mail

Enterprise web development at it's finest. The Globe and Mail's development team is strictly by-the-book agile programming using an enterprise Java backend. I was on a front end team developing with HTML/CSS/JavaScript using JSP and JSLT templates for their proprietary Java CMS (Escenic). I was integral in building the new "Dashboard" web app addon for TGAM subscribers. This app uses real-time communications implemented with CometD (Bayeux server). I also helped maintain their only Python/Django app, a URL shortener for tgam.ca

- Enterprise development

Web Application Developer

2010-12-01 - 2012-01-30

Trapeze Media

At Trapeze, I was on the front-end team working with HTML, CSS, and JavaScript. In addition to my standard front-end duties, I worked with our backend team extensively honing my Python skills into mastery (mostly using the Django framework). I worked on many major brands including Canadian Tire, Kraft Peanut Butter, Shoppers Drug Mart (and Pharma Prix), Oreo, Maxwell House, Tassimo and many others. Trapeze used to encourage their developers to work on research projects, thanks to that perk I am now well versed with upcoming technologies and methodologies like responsive design, WebGL, NFC and Node.js.

- Strong development team taught me how AGILE works
- Had strong recognizable brands as clients

Director of Technology

2008-08-01 - 2010-11-30

BlueBand Media (now known "Blueband Digital")

Leading a small team of developers we built end-to-end solutions for our clients mostly with a LAMP software stack. ExpressionEngine and Wordpress were our go to frameworks for PHP development. Working at BlueBand Media allowed me to garner a deeper understanding in many aspects of the consumer packaged goods industry. I worked on many projects from simple promotional draws and automated tweets all the way up to nationwide pin collection and entry contests that featured interactive social media content and technical treats like augmented reality. Being the go to guy to get anything technical done was my calling card here. I loved learning new technologies and seeing where I could mesh them with old ones I already knew, this comes in very handy in agency environments.

- Learned all the ins and outs of Consumer Packaged Goods marketing

Front-end Web Developer

2005-08-01 - 2008-02-28

The Best Media

At The Best Media, I was responsible for everything IT related. This spanned from ensuring our Linux server was still serving our hosting customers, to developing and maintaining client websites. During my time here, I honed my web development skills to master HTML4, XHTML, PHP, Javascript (Ajax, jQuery) and Flash Actionscript. I also dabbled in many other clients' web technologies including ASP, .NET (ASP, and C#), eRuby, Python and Perl.

- No 'chosen' language here, fixed, or added to many different types of projects.

Hardware Technician

2004-01-02 - 2004-08-31

ICA Microsystems

ICA Microsystems provided me with additional experience in many facets of IT businesses. While at ICA Microsystems I built, repaired and serviced all types of systems ranging from desktop PCs all the way up to the servers from our rack mounted server farm.

- Helped administer the hosting co-location and p2p wireless internet provider services

EDUCATION

Diploma in Computer Programming   2004-09-01 - 2006-06-30

Humber College

LANGUAGES

English: Native speaker