

Timothy James

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For over 20 years, I've worked with teams and solo delivering impactful full-stack applications and back-end systems as **systems architect, full-stack software engineer, product analyst, team lead, mentor, and coder.**

Resilient distributed systems, sophisticated real-time web apps, complex multi-party integrations. Tools and products tailored to the subtle nuances of stakeholder needs. Systems with just the right properties and tradeoffs—across throughput, latency, resilience, security, scaling, and more. Leading and mentoring teams to excellence. UIs that powerfully connect users to intricate and ever-changing spaces of data—and to each other.

EXPERIENCE

Details: tjames.com/projects

Freelance Software Engineer

May 2017 - Present (1 years 7 months)

Architected and implemented full-stack apps from business need to realization in market. Analyzed business and user needs to pinpoint maximum impact in limited budgets, in code and cloud. Owned all client relationships and business development. Used risk-driven scheduling to manage projects end-to-end. UX design.

JavaScript, react, react-native, node.js, AWS, Google cloud, Firebase, TDD.

Kindred.ai

Principal Engineer

November 2016 - April 2017 (5 months)

Aided Kindred's bold mission—practical robotics and AI leading to AGI—with focused systems and UI engineering.

Node.js, react.js, Python3/asyncio, AWS, Docker, ROS (Robot Operating System).

Capital One

Master Software Engineer

August 2015 - November 2016 (1 year 3 months)

Led the Andromeda project, bringing streamlined content-to-static-website as a platform to Capital One, a Fortune 500 enterprise. Mentored (and managed) junior and mid-level engineers to excellence in systems and platform work.

Passionately provided internal customers with platform products that work together, out of the box, with easy and safe customization.

Node.js, Angular.js, HTML5/CSS3, AWS (EC2, S3, CloudFormation, AutoScaling, ELB, CloudWatch, IAM), Docker.

Change.org

Principal Engineer

February 2012 - May 2015 (3 years 3 months)

Owned and led targeted, revenue-critical systems projects as systems architect, technical product owner, team lead, project lead, coder, mentor, UX designer. *Highlights:*

- Architected and engineered customer-critical lead delivery system, integrating with multiple CRM APIs, Salesforce; angular.js/websockets realtime dashboard; Postgres core; customer delivery point for 80% of company revenue.
- Founded data science team as lead and architect, delivering machine learning-driven recommender system used to reach now 100+ million users. Moved analytics from MySQL to Amazon Redshift.

AWS cloud services (EC2, S3, Redshift, EMR, RDS, ELB, AutoScaling, cross-AZ deploy); javascript/node.js/angular.js/D3.js; postgres; redis; TDD (unit, integration, angular UX).

RadicalFusion, Inc

Advisor

August 2011 - October 2011 (2 months)

Great engineering is not enough. Valuable software demands a strategy to discover and deliver to real customer/market needs, and a risk-driven approach to project management. I helped RF better navigate the waters of software making as a professional service.

Voxer

Member of the Technical Staff

December 2007 - March 2011 (3 years 3 months)

We created Voxer, the iPhone walkie-talkie voice/text/photo messaging app, with backend server.

- Built Python/CouchDB/Linux server, later owning major subsystems in (Crockford-style) JavaScript/node.js-based rewrite, integrating Facebook API.
- Built cross-platform mobile-client core in C++, with select()-based frame/control loop to handle n audio streams at 50fps, simplified HTTP layer, and write-through audio cache handling recorded/live transitions, using STL and Boost, with unit tests.
- Mentored in Python and C++; gave engineering-wide “teach-ins” on essential topics like memory handling mechanisms and best practices in C++ and Objective-C for iPhone.
- Optimized our CouchDB NoSQL database (per load tests) for 10x query throughput improvement; created zero-downtime single-server schema migration tool.

IronPort Systems / Cisco

Software Engineer

September 2005 - December 2007 (2 years 3 months)

- Refactored and reengineered the SBRS DNS system, IronPort’s first line of defense against spam and viruses, into a cohesive, maintainable, fast, tested and correct implementation, in Python and C++, utilizing comprehensive unit tests, static call visualization, and organized logging.
 - Built web dashboard application for real time monitoring and control of distributed server processes, in Python.
- Python, MySQL, C++, SMTP, DNS, BSD*

ValueClick

Senior Software Engineer

December 2004 - September 2005 (9 months)

Java, J2EE, bash shell script, Web Services, SMTP, Linux/Solaris, Tomcat, Apache, Axis.

Freelance Software Engineer

May 1997 - October 2004 (7 years 5 months)

C++, SQL, Java, J2EE, mySQL, ...

EDUCATION

New Mexico State University *Computer Science* 1994 - 1998

Activities and Societies: ACM, Crimson Scholar

President: NMSU Student Chapter of the ACM 1996/97