Michael Chermside

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Summary:

I am a developer and architect with well over 20 years experience, who has reached senior levels at a major tech company. I want to have a role where I can make a real difference: can lead, mentor, and participate on a motivated team that tackles challenging projects and makes a real difference in the company's success.

Technical Expertise:

Languages: I am a polyglot. I've used Java extensively since 1997. My first talk at a major Python conference was in 2005. I can use JavaScript, C, C++, SQL, and many others. I dabble in Rust, Scala, and other less-common languages.

Technologies: I have over 20 years experience building web-based applications. I have architected several applications on AWS. I know enough about threading to be dangerous and sometimes correct. I enjoy collecting notes on algorithms and data structures.

Beyond Code: I can communicate well both with technical and non-technical audiences, either in writing, speaking, or formal presentations. I am interested in the company's business, not just the software (and have significant experience in banking and financial services). I work to develop and mentor new talent. And I still have a lot to learn.

Career Experience:

Distinguished Engineer

Capital One, Wilmington DE 2017-present

In 2017 I was promoted to "Distinguished Engineer". In that role, I have had responsibility for Banking Cores (the systems that track money) and have helped to design the future of Banking Cores for Capital One.

- Organized a Cross-LOB Team from three different lines of business to evaluate the banking core Capital One has developed internally and assess gaps.
- Developed API Designs to address issues in "CPAL", Capital One's new enterprise API layer for financial cores. Challenges ranged from "How can individual teams make changes without impacting other teams?" to "What's the logical way to organize all transaction types?"
- Served as Architect for two banking cores. Solved issues like "How can we encrypt the account numbers in a core not designed to do that?" and "How do we move from batch files to real-time?"
- Supported "Individual Contributor" Track, served on committee overseeing the "Distinguished Engineer" program, helped run a mentoring program for ~600 people, created a series of video interviews and a semi-annual "tech leads" meeting, & more.

Architect

Capital One, Wilmington DE 2011-2017

Occupied a series of different "architect" roles through a few reorganizations, culminating in several years as the sole architect for the Small Business Bank group (~150 engineers).

- Designed Numerous Systems dealing with issues of scaling, threading, cloud deployment, performance, maintainability, standards
- Documented Systems maintained documentation of capabilities and system architectures for all systems in Small Business Bank. When tracking it by hand became tiresome I created a tool to automatically maintain system diagrams.
- Provided Training to development teams. For instance, when we began to use the cloud, I organized a regular training series on AWS.
- Established API Review process across Capital One: was one of three members of the enterprise API review board when Capital One first started using RESTful APIs and I defined and documented the original REST API standards.

Lead Developer and Architect

ING Direct, Wilmington DE 2002-2011

An architect and leading developer for a major bank on a team with about 40 developers responsible for developing and maintaining all bank software: over $1 billion managed per developer. My responsibilities included coding, debugging, system design, mentoring, technical lead, responsibility for project delivery, close interaction with customers, and team leadership.

- Technical lead on numerous projects. Responsible for estimation, helping define requirements, technical design, assigning work to developers (including myself), performing code reviews, managing the QA cycle and shepherding the release process. Managed several projects as large as 15 developers x 10 months.
- Introduced unit testing. I was the champion pushing for our team to adopt unit testing. Over the course of 2.5 yrs we went from no tests to over 45% coverage. Also went from substantial resistance by some in IT ("unit tests waste time") to universal agreement on testing with no one committing code unless the tests pass and a continuous integration server to verify it.
- Designed, documented, and developed software for an advanced branch management scheme based on Subversion. With this in place, the team managed an average of 6 projects (sometimes up to 10) under development and 3 in QA simultaneously while retaining the ability for the business to re-order releases on a whim.

- Improved and defined database "Design Patterns". Then, after observing that most DB development effort was being spent on maintaining static "configuration" data, I implemented a system to automatically generate these scripts from files maintained under version control.
- Championed Agile Development. Spearheaded a campaign (against much resistance) to convince the company to change from a pure waterfall methodology to an "agile development" approach.

Technical Lead

Destiny Software, Conshohocken PA and Chicago IL 1998-2002

Multifaceted position for a leading provider of internet consulting for financial services. Led development teams in work on and off client sites, architecting and developing java-based enterprise-level web applications for top-tier financial services companies.

- *Technical lead* for $5 million project for Fleet Credit Card to process applications online. They became the second issuer ever to offer "instant credit" – the ability to use the card literally within 2 minutes of applying. Responsible for design, and for supervising development, testing, and integration into the client environment.
- *Designed and architected* object oriented systems, using UML methodology. Utilized use case analysis, class and interaction diagrams, architectural analysis, and so forth. Addressed issues such as concurrency, performance implications of architecture, legacy integration, and use of cutting edge technologies (EJBs in 1999).
- *Developed* code in Java (also C++, C, Perl, and Python). Reviewed code by other developers. Fixed lots of bugs (many of them my own).
- *Met with clients*, both on a technical and business level. Cajoled, applied pressure, and massaged egos as appropriate. Sometimes successful, sometimes not.
- Invited to help *found a new office* in Chicago. Spent two years there, charged with recreating the delivery-minded, open, and flexible culture of the home office.
- Defacto Technical Lead on project that *established partnership* with an India-based development firm. Successfully managed 24 hour development cycle.
- *Demonstrated flexibility* by performing various roles as needed. Interviewed candidates (1-6 interviews/week while hiring). Assisted with sales (eg: presented to Barclays Bank in London). Researched and evaluated products. Even hauled furniture to set up a new office!
- *Made a constructive difference in the company.* Received "Founders Fund" award for championing causes including "performing code reviews", "revising company stock plan", and "creating a reusable code library". In each of these cases, I was the person who brought it up with the CEO, wrote up notes or documents, and kept people engaged until there was a consensus for change.

Computer Science Department Professor, Chairman

Hun School, Princeton NJ 1995-1998

Member of the computer science faculty at a private college-preparatory high-school. Promoted to the chairman of the department, with responsibility for all computer courses and most computer use throughout the school.

- *Supervised* Computer Science faculty and provided leadership at the school through the role of Department Chair.
- *Taught courses* including Computer Applications, Introduction to Programming, Advanced Placement (college-level) Programming, Java Programming, and Advanced Web Design. Taught courses from 7th grade through college level.
- Managed budget of around *$80,000* to support computer labs and department activities.
- Maintained and operated *over 60 computers* in 4 computer labs. Created program where I trained students to assist with the administration in lieu of hiring additional staff.
- *Developed curricula* for new courses on *Java Programming* (covering object-oriented programming, data structures, event-driven GUI interfaces, and use of threads) and *Advanced Web Design* (HTML, Pagemill, Photoshop, CGI programming, Javascript, and other web tools).
- Key member of the Technology Committee, responsible for *planning and implementing* a campus-wide fiber-optic/ethernet network and internet connection for around $250,000.

Head Programmer

Strategic Simulations Inc., Ithaca NY 1994-1995

Provided direct supervision and training for a team of 5 programmers working on "Corsim", one of the first micro-economic demographic simulation programs.

- *Maintained and extended* Corsim, a large demographic simulation modeling the population of the United States. Coding was in C.
- *Managed* a team of 5 programmers; also trained newly hired staff.
- *Proposed and designed* the use of a relational database for storing simulation data.
- *Implemented a GUI interface* in PowerBuilder for analyzing and reporting results. This eliminated the need to frequently repeat 20+ hour simulations.

Education:

Cornell University:	M.S.	1994	Materials Science and Engineering	GPA: 3.58
Earlham College:	B.A.	1992	Physics and Math (double major)	GPA: 3.95