

MARK ALLEN NEIL

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ENGINEERING DIRECTOR

Systems ▪ Software ▪ Architecture

PROFILE

Engineering architect and leader with extensive technical, management and business skills. Highly cross-functional background including positions in engineering, marketing, applications and service. Broad engineering scope spanning software, algorithms, internet and systems disciplines. Delivery of >\$2B of products to external customers during my career.

HIGHLIGHTS

- Seasoned** ▶ 20+ years of engineering, 15+ years leading product development efforts.
 - Software** ▶ Exceptional, current software skills with a focus on analysis and algorithms.
 - Creative** ▶ Innovative and analytic problem solver with several algorithm patents.
 - Proven** ▶ Concept-to-deployment development of several commercially successful products.
 - Adaptable** ▶ Cross-functional experience in software, algorithms, hardware and mechatronics.
 - Internet** ▶ Developed multiple websites employing a variety of frameworks and technologies.
 - Strategic** ▶ Communication and strategic skills able to work with diverse stakeholders.
 - Global** ▶ Multinational experience, comfortable leading global teams and traveling abroad.
 - Passion** ▶ Driven, energetic, passionate, a quick study and hard working.
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PROFESSIONAL EXPERIENCE

Mark Neil Engineering LLC **Engineering Consultant** **2009-2011**

Solutions Delivered

- System analysis for an ultra-high data rate image processing computing grid.
- Analysis and prototype evaluation of a novel touchscreen technology for a start-up.
- Developed three multi-tier websites employing Flash AS3, Drupal, MySQL, jQuery, AHAA and AWS.
- Authored semiconductor and flat-panel defect review and image acquisition applications.
- Application and algorithm development for mechatronic and image processing (Java, MATLAB).
- Study, optimization and algorithm development for flat-panel yield enhancement.

Pointer Games LLC **President and CEO** **2010**

Executive Summary

- Founded Pointer Games LLC to develop and deliver high-quality games for mobile phones.
- Designed, implemented and deployed “Splodey!” and “Splodey! Lite” to the Android mobile market.
- Deployed a commercial website to showcase Pointer Games (www.pointergames.com).
- Experienced with all aspects of founding a start-up: Concept, business, engineering, marketing.

KLA-Tencor Corporation **Engineering Consultant** **2008**

Prototype Solar Inspection System

- Developed the software architecture, design and code for a solar cell inspection/repair system.
- System developed included multiple servomotor stages, cameras, lasers and DAQ subsystems.
- Authored a multi-tier system application comprised of MATLAB, Java, C++, XML and SVG elements.
- Invented several novel algorithms for design-referenced defect detection, bounding and clustering.

PROFESSIONAL EXPERIENCE

KLA-Tencor Corporation **Senior Director of Engineering** **2005-2007**

E-Beam Review and Metrology Products

- Directed systems and algorithms teams developing multimillion dollar automated scanning electron systems for the semiconductor metrology and defect review markets.
- Responsible for establishing performance specifications and insuring compliance.
- Responsible for image and signal processing algorithm development and maintenance.
- Served as program chief engineer and personally developed several key algorithms and models.

KLA-Tencor Corporation **Principal Platform Architect** **2004-2005**

E-Beam Next Generation Platform

- Systems analysis, modeling and architecture for a next-generation common hardware and software platform to serve multiple internal customers.
- Authored several sophisticated models and simulations to establish design requirements.
- Platform met all performance and cost targets and was delivered to schedule.

KLA-Tencor Corporation **Senior Director of Software Engineering** **1997-2004**

E-Beam Metrology Products

- Development of multimillion line software application for automated scanning electron systems serving the semiconductor metrology market.
- Assembled a team from scratch, peaking at 35 managers, engineers and quality personnel.
- Served as software architect and authored significant portions of the code.

Early Career

- Senior Marketing Manager, KLA Instruments (2 years).
- Technical Support Manager, KLA Instruments (2 years).
- Engineering Liaison Manager, KLA Instruments (3 years).
- Senior Technical Support Engineer, KLA Instruments (5 years).
- Senior Scientific Software Engineer, Lockheed Missiles and Space (2 years).

SKILL SUMMARY

Leadership Skills

- Led several programs developing complex, multidiscipline systems from startup to obsolescence.
- Advocate of highly agile processes designed to quickly and incrementally evolve systems.
- Hands-on management style, believer in MBWA and the open-door policy.
- Quickly gain respect and trust of associates at all levels and disciplines – including smart engineers.
- International travel experience, remote team coordination, technical conference and trade shows.
- Institutionalized quality processes including CMM, ISO, defect and product life-cycle management.

Technology Skills

- Expert at complex software and system architecture, design and implementation.
- Proficient in object oriented design, C/C++, Java, VB, PHP, Python, Eclipse and MATLAB.
- Strong understanding of digital, optical, robotic, mechanical, pneumatic and vacuum systems.
- Adept in statistics, simulation and modeling, signal and image processing, and noise reduction.
- Web 2.0 skills – HTML, XML, AS3, SVG, LAMP (Linux, Apache, MySQL, PHP), Drupal and JavaScript.

PATENTS AND PUBLICATIONS

Co-inventor of five patents – 7015468, 7041976, 7241991 and two pending.
Author and presenter of conference papers at BACUS (1993) and Semicon West (1996).
1988 Compute's PC Magazine, "Programmable Printer PopUp shareware package."

EDUCATION

BSCS, University of the Pacific, Summa Cum Laude, GPA 3.98.
MSEM (partial), Santa Clara University, GPA 4.00.
Roughly 20 management training courses taken over the span of my career.