

EDUCATION

Master's of Engineering, Software Engineering; August 2016
Pennsylvania State University, University Park, PA

Bachelor of Science in Engineering, Computer Engineering; August 2013
University of Pittsburgh, Pittsburgh, PA

CERTIFICATION

Software Architecture Professional Certificate, March 2017 Software Engineering Institute, Carnegie Mellon University.

RELATED EXPERIENCE

Director of Engineering – Lead Engineer, Travelers Insurance, Hartford, CT | November 2020 – Present

- Architecturally design, lead and implement a three tier architecture for the new Travelers Mobile application (React Native, Node.js AWS Lambdas, MuleSoft and Node.js services) promoting modular vertical stack design for rapid development, testing and triage.
- Assist in the engineering job family strategic direction to create a consistent engineering organization across the enterprise including working model, hiring process, engineer professional development and engineering management.
- Mentor and lead mobile and web engineering teams in architecture concepts, engineering best practices including code writing best practices, CI/CD development, test driven development and outcome based development.

Lead Architect Next Generation Platforms, Travelers Insurance, Hartford, CT | March 2018 – November 2020

- Architecturally design and implemented a consistent React JS/Javascript based custom web framework for use across the enterprise to increase speed to market and shared skillsets.
- Lead architect and point of integration communication for Travelers products related to Personal Insurance (web application, mobile application, data management/integration).
- Co-leading the API Management Modernization effort across the enterprise using MuleSoft by providing best practices, patterns, mentoring, and creating core capabilities.
- Mentoring and coaching developers throughout the department in architecture processes and programming.
- Participating in solutions for design patterns to solve enterprise wide problems to create consistent and highly adoptable solutions.
- Co-Leading efforts in the enterprise's Omnichannel efforts to promote customer experience including our virtual assistant and chat spaces.

Enterprise Architect, Travelers Insurance, Hartford, CT | November 2016 - March 2018

- Architect and develop performance testing applications that integrate with third party performance analysis tools.
- Introduced various open source frameworks and resources to the enterprise improving efficiency, reducing development time, promoting cross-team/department collaboration, and reducing costs.
- Architect, lead a team of developers, and built multiple applications using Node.JS (React, Express, and other open source frameworks) to replace three manually intensive processing, saving an average of 75 man hours per project. Additionally, the applications have been adopted company-wide as frameworks which are being expanded for enterprise use.
- Participate in peer reviews of enterprise applications' architectural designs.
- Research and develop in house tools and applications for performance analysis within a continuous integration/development environment.

Software Engineer II, ESPN, Bristol, CT | May 2016 - November 2016

- Develop and maintain a variety of applications including web and mobile.
- Develop, support, maintain and consume consistent and reliable APIs.
- Architect and designer of analytics calculation systems which integrate with third party UI vendors.

- Design automated systems to verify system health and detect degrading systems prior to failure.

Co-Founder/Executive Officer, Wingnut Technologies | June 2014 - Present

- Manage employees, projects, and day-to-day operations.
- Act as Chief Engineer for all projects and participate in the development process. Build applications and hardware to support customer needs.

Software Engineer, M*Modal, Pittsburgh, PA | June 2015 - April 2016

- Improve the quality of health care through engineering techniques utilizing natural language processing.
- Create rule-based engines in XML, along with NLP Grammar, to plug into a custom framework for pipeline integration.
- Lead and participate in the software development life cycle including requirements elicitation, software architecture and evaluation, implementation, refactoring, integration, testing, and maintenance.

System Programmer III, Department of Biomedical Informatics University of Pittsburgh, Pittsburgh, PA September 2014 - June 2015

- Design, test, and maintain complex software systems to assist in decision analysis and provide information to public health officials with minimal supervision.
- Lead requirements elicitation, designed software architecture, and supported the software life cycle for a variety of applications (web applications, decision analysis desktop applications, and simulation data processing).

Live Instructor, LearnToProgram Inc., Vernon, CT | June 2014 - January 2015

- Create curriculums and present lectures to students from around the world in a virtual classroom.
- Grade assignments and assisted in student development.

Undergraduate TA/Instructor, University of Pittsburgh, Pittsburgh, PA | June 2007- June 2013

- Create curriculums and present lectures to students. Assist professors by leading recitations and grading.

SKILLS AND QUALIFICATIONS

- Programming Languages & Frameworks: Java, Javascript, JQuery, JSTL, JSP, J2EE, C, HTML, CSS, XML, XSLT, Node.js, React, React-Native, Angular, Jest, Mocha, Chai, Enzyme.
- Familiarity with deployment to Tomcat servers and Pivotal Cloud Foundry (PCF).
- Experience with Spring MVC and Maven.
- Experience with SOAP and RESTful based web services
- Database: Oracle, SQLPLUS, JDBM, Mongo, MySQL.
- Proficient with MATLAB.
- Proficient with Integrated Development Environments (Intellij, Eclipse, Netbeans, Visual Studio)
- Familiarity with IEEE software design document formatting and processes.

RELEVANT PROJECTS AND ACHIEVEMENTS

(Project details and additional projects can be found at www.dseskey.com)

- Redundant, Reliable, Public Safety Paging System: Developed iOS and Mac Applications as a proof of concept system to replace emergency responder radios with mobile devices to leverage Emergency Response LTE bands. Received first place in the Senior Design fair in the software category.
- Single Plant Irrigation System: Developed software and hardware to create a scalable plant irrigation system to properly water plants based on several factors such as temperature, ground moisture, and sunlight. Applications were developed using C.
- Centralized Traffic Control: Built a simulated railway as a functional prototype to show how different software modules could be designed and integrated. The project was written using the Java language with a MySQL database.
- Highest ranking teaching assistant three years in a row by students for the Department of Engineering at the University of Pittsburgh.