Patrick Heney

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SUMMARY

Unity Certified Developer. Software development generalist with broad skill-set and many areas of expertise. Experience spans business application development, project management, databases, game design and development, 3d content creation.

- Agile, Test Driven Development (TDD), Object Oriented Analysis-Design-Programming (OOA / OOD / OOP), Functional Programming

EXPERIENCE

Software Developer, Bell County, Belton, Texas   Feb 2014 – present

- Project Lead for the Sheriff Citation mobile web-app
- Increased case management accuracy and reduced case processing delays for the District Attorney
- Increased privacy and record keeping accuracy for District Attorney Victim Support Services
- Improved case management efficiency of the Police Narcotics K9 unit
- Mentor junior developers and interns to sharpen development skills, build experience, and develop good coding practices
- **Development Projects**: Sheriff Citation Web Application, K9 Training Application, Judge Magistrate Web Application, County Fleet Management, Civil Service Papers, Judge Inquest System, District Attorney Case Intake Previewer
- **Other Projects**: District Attorney Case Management Implementation, County Attorney Case Management Implementation, County Fleet Management development and maintenance support, Civil Service Papers, Judge Inquest System, Building & Grounds trouble-ticket system, database documentation templates
- **Technologies**: C#, HTML5, CSS, Bootstrap, JavaScript, jQuery, SQL Server, Reporting Services, XML, MVC, Entity Framework, UI Frameworks, Visual Studio Unit Test Framework

Game Developer, Freelance, Temple, Texas   Feb 2008 – May 2014

- Design and implement game systems to maximize player engagement, retention and conversion
- Design behavior loops, core-mechanics, reward schedules, on-boarding and the meta-game
- Create robust game design and progression that leverages statistical models, combinatorics and probability theory
- Optimize player experience using statistical ANOVA, factorial analysis, response surface methodology, and player metrics

Simulations Engineer / Analyst, Research Analysis and Maintenance (RAM), Fort Hood, Texas   Dec 2012 – May 2013

- Provide simulation integration and development support for test and evaluation of C2 and surveillance systems
- Technologies: Java, Linux, CISCO IOS, military simulation systems, military communication systems, tactical networks
- Continuation of contract from Alion.

Simulation Subject Matter Expert (SME), Alion, Fort Hood, Texas   Sep 2008 – Dec 2012

- Duties as described for Research Analysis and Maintenance (RAM). Continuation of contract from Alatec.

Military Analyst, Alatec, Fort Hood, Texas   Feb 2008 – Sep 2008

- Duties as described for Research Analysis and Maintenance (RAM).

PROJECTS

- Redshift (gameplay video), Race Forever (play), Asteroids (play), Implement high-score database for thebreathingzone.org
- **Game Genres**: Side-Scrolling Platformer, First Person Shooter, Turret Defense, Tile Puzzle, Missile Command, Procedural Systems
- **Systems**: SMS messaging, GPS integration, networked multiplayer and lobby system
- **Technologies**: C#, Unity, Android, Java, JavaScript, Python, SQL, MySQL, jQuery, ProcessingJS, Google APIs, RSS, NUnit, Autodesk Maya, Cinema4D, 3DS Max, Blender, GIMP, Photoshop, Google SketchUp

EDUCATION

Master of Science, Computer Science & Industrial Engineering, Purdue, IN 2019
Unity Certified Developer, Unity Technologies, Austin, TX 2016
Bachelor of Arts, Media Communication (Minor: Computer Science), Virginia Polytechnic and State University, Blacksburg, VA 1997
Certificate of Advanced Studies in Character Animation, AnimationMentor, Berkeley, CA 2008
Extensive continuing education focused on software and game development. Complete list available upon request.