

# Zachary Lytle

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Solutions Architect • Agile Coach • Software Engineer • Product Evangelist

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## WORK EXPERIENCE

### *Director, Lytle Technologies*

*November 2015 - Present*

#### *Technical Program Manager, US Dept. of Transportation*

- Developed machine learning license plate recognition engine using Python, TensorFlow, and OpenCV directly connecting to the DMV REST API, eliminating need for human verification.
- Modernized internal EZPASS CRM application written in JAVA for latest Spring, RabbitMQ, and Apache Tomcat. Wrote custom JDBC driver for connection and exposure of MSSQL DBs.

#### *Senior Software Developer, Universal Studios*

- Combined the use of Bluetooth LE beacons and Google's ARCore in JAVA and Swift to deliver unique iOS & Android augmented-reality experience for theme park navigation.

#### *Solutions Architect, Amazon Web Services*

- Utilized EC2 Spot Instances, Amazon S3, Elastic Load Balancing, and Amazon CloudFront to publish a new AWS product offering, Amazon Sumerian, aimed at VR/AR companies.

#### *Technical Consultant, PowerSchool*

- Created automated E2E & Integration test suite for education CRM built in React using Selenium Webdriver, Docker, and ASP.NET Core. Provided non-technical QA staff with custom recording tool to create future tests as-needed built in React using Redis and NodeJS.
- Implemented CI/CD process using Jenkins DotCI, Atlassian JIRA & Confluence, and Github.

### *Founder & President, AirHokie*

*September 2013 - November 2015*

#### *Project Manager, Federal Aviation Administration*

- Created REST API for airport radius mapping using MongoDB, .NET Core, and MS IIS.
- Pitched, managed, and developed FAA mobile iOS & Android application 'B4UFly'.

#### *Director of Platform Security, Dà-Jiāng Innovations (DJI)*

- Designed and piloted custom unmanned aviation solutions for small and large clients in the news sports broadcasting, search and rescue, law enforcement, and agriculture industries.

#### *Technology Consultant, U.S. House of Representatives*

- Consulted with the congressional aviation sub-committee to write commercial UAV laws.
- Fostered relationships and discussion between government organizations such as the FAA and NTSB with industry clients including GoogleX, Amazon Prime Air, GoPro, and DJI.

### *Software Developer & QA Engineer, Rackspace Hosting*

*May 2013 - August 2014*

- Rebuilt BDD automated testing platform in Ruby using RSpec and Selenium Webdriver, reducing integrated branch deployment test time from one hour to under four minutes.
- Authored and piloted Canon 2.0, a visual overhaul for the Rackspace web applications using LESS, Bower, and Grunt for a consistent UI/UX experience across all team projects.
- Maintained 11-year legacy Email & Apps API and control panel built in ASP .NET and NHibernate while launching new products such as SSO authentication and MS 360 Office.

### *Undergraduate Instructor, Dept. of Computer Science*

*January 2012 - December 2016*

- Conducted introductory and intermediate CS lectures, labs, and projects in Java and Python.
- Founded the CS Mentoring program to foster 1-on-1 relationships between incoming students and established upperclassmen.

## EDUCATION

*Earned Bachelor of Science in Computer Science – Human Computer Interaction*

*Earned Bachelor of Arts in English – Professional Writing & Literature*

Virginia Polytechnic Institute and State University, 'Virginia Tech', Blacksburg, VA

*Minors in Creative Writing, Philosophy, and Mathematics*

*Dean's List: Fall 2012, Spring & Fall, 2013*

*Studied Master of Science in Computer Science – Aviation & Artificial Intelligence*

*Studied Master of Public & International Affairs – Policy Research & Analysis*

Virginia Polytechnic Institute and State University, 'Virginia Tech', Blacksburg, VA

*Awarded Marston Entrepreneurial Award for Greatest Industry Impact*

## PROJECTS

*CEO, Startup Hokie & BargainBurg*

- Developed course syllabus for CS 4704 with one assignment: build a web-service startup.
- Lead a team of twenty students to build online coupon platform for local businesses.
- Company was acquired by major university publisher after three month's development.

*Project Manager, Project MELT (Middle English Language Translator)*

- Developed natural language processing application in Python and PostgreSQL.
- Taught a machine to create audio pronunciations based on historic phonetics.
- Library was eventually licensed through Virginia Tech Knowledge Works for CRC research.

*Developer & Community Administrator, WebDiplomacy*

- Built and managed online version of Diplomacy, a strategic negotiation game using PHP.
- Organized feedback and community engagement to encourage open-source development.

## SERVICE

*Chairman of the Board, Developers Without Borders*

- Pairing and supporting teams of developers with NGO's and non-profit organizations to improve solutions for health, social welfare, farming, and education around the world.

*Program Manager & Sponsor, Micah's Backpack*

- Providing direct weekend food assistance for children from low-income families.

*Outreach Coordinator & Spokesperson, Child's Play Charity*

- Writing promotional content to increase awareness and funding for children's hospitals.

*Volunteer Webmaster & Program Foster, Peninsula SPCA*

- Provided IT and web development services to the Virginia Living Museum and SPCA.
- Continuing to foster ~10 animals a year for therapy service pre-training and care.

## CERTIFICATIONS

*Microsoft Certified Solutions Developer (MCSD)*

*AWS Certified Solutions Architect (AWS-PSA)*

*Red Hat Certified System Administrator (RHCSA)*

*Professional Scrum Product Owner (PSPO)*

*Red-Seal Journeyman Baker-Pâtissier, Ontario, Canada*

## MEMBERSHIPS

*External Advisory Board, Alliance for System Safety of UAS through Research Excellence (ASSURE)*

*Advisory Board, Virginia Center for Autonomous Systems*

*Entrepreneurial Outreach Committee, Virginia Tech Institute for Creativity, Arts and Technology*

*Startup Mentor, Virginia Tech Foundation*