

# Erick Garcia Flores

## SOFTWARE DEVELOPMENT ENGINEER

As a dedicated software developer with over 6 years of experience, I am driven by the challenge of crafting seamless user experiences and robust web applications. My journey in the tech industry has been guided by a deep commitment to writing maintainable, high-quality code and a passion for UX design and web development. What truly sets me apart is my agility in learning; I thrive on rapidly mastering new technologies and methodologies to solve complex problems. I am eager to contribute to a team that shares my values of innovation, quality, and continuous improvement. For a deeper dive into my projects and to explore my hobbies, which fuel my creative approach to software development, I invite you to visit my website.



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## WORK EXPERIENCE

### Prime Air Engineer Amazon Corporation

08/2020 - Present Seattle, WA  
*Changing the lives of customers by building a package delivering infrastructure on the air through drones.*

#### Role

- **Led the development of a critical UI service for FAA drone flight test validations**, pioneering Docker adoption for automated ecosystem validation in simulated production settings. Enabled advanced service-to-service interactions and testing capabilities, marking a key advancement in service automation.
- **Managed complex logistics and coordination for a pioneering drone project**, driving successful collaboration across multiple teams to deliver a groundbreaking aircraft product. Integrated novel technological solutions to meet rigorous aviation standards, demonstrating exceptional problem-solving skills.
- **Elevated software engineering practices within an orchestration-focused team**, leveraging extensive domain knowledge to impact critical features for future releases. Implemented comprehensive testing protocols to improve code quality and reliability. Effectively handled high-priority operational incidents, ensuring system stability.

Contact : Rene Mader - rpmader@amazon.com

### Full-stack Angular Developer Applied Materials

06/2019 - 12/2020 Phoenix, AZ  
*Worked with a remote team in the Semiconductor industry on a ETL and data analysis tool. Technologies used are Angular, Java, and virtualization.*

#### Achievements/Tasks

- Migrated our data analysis legacy tool to Angular 8 employing latest industry standards which highly improved the quality of the code base
- Created infrastructure for unit testing and code review and enforced them on the front-end team through positive reinforcement and mentorship

Contact : Alex Pai - alex\_pai@amat.com

## EDUCATION

### Master of Science – Software Engineering The University of Texas at El Paso

2017 - 2018 3.44

#### Cyber secure systems specialization

- The practicum project consisted of a plugin architecture add on for IDA a disassembler and debugger, that enhanced the functionality and it is currently used by cyber security development teams in Fort Bliss

### Bachelor of Science – Computer Science The University of Texas at El Paso

2014 - 2016 3.33

#### Minor

- Mathematics

## TECHNICAL SKILLS

### Programming Languages & Technologies

Kotlin, Typescript, Java, C#, PHP, Python, MySQL, SPARQL, Oracle, MongoDB, OWL (Ontology), AWS (CDK), React, Angular, Redux

### Proficient in Core AWS Services:

Deep knowledge in deploying and managing scalable applications using EC2, S3, RDS, and Lambda. Expertise in leveraging AWS for high availability, scalability, and security.

### DevOps & Automation:

Skilled in implementing CI/CD pipelines with AWS CodeBuild, CodeDeploy, and CodePipeline. Experienced in infrastructure as code (IaC) using AWS CloudFormation and CDK for efficient cloud resource management.

### Security & Cost Optimization

Strong grasp of security best practices with IAM, encryption, and AWS security services. Adept at optimizing costs through effective resource management and scalable cloud solutions.

### Containerization & Monitoring

Proficient with Docker, Amazon ECS, and EKS for container management. Utilizes CloudWatch and AWS CloudTrail for comprehensive monitoring and logging to ensure optimal application performance.

### Patterns & Methodologies

SOLID (Clean code), Agile Development & SCRUM, User-first design, Test-driven development, MVC, MVVM, Singleton, Factory, Redux

## WORK EXPERIENCE

### Service Information Developer II DXC Technology

03/2018 - 05/2019

El Paso, TX

Develop, maintain and test healthcare portals (MMIS Applications). Understand the business and technical aspect of the healthcare industry.

#### Achievements/Tasks

- Fixed exploits and optimized most of healthcare portals security in the US

Contact : Oswaldo Perez - [oswaldo.perez@dxc.com](mailto:oswaldo.perez@dxc.com)

### Product Platform V&V Intern Intel Corporation

2017 - 2018

Hillsboro, OR

Verification and validation on processors with the following technologies: WinForms UX Design, C# WCF protocols, unit testing and mock testing.

#### Achievements/Tasks

- Implement a continuous integration system supporting the team's host and client structure using virtualization
- Develop a bootstrap installer to deploy the V&V tool to developers and to the engineers in the fabrics

Contact : Tristan Hanson - [tristan.hanson@intel.com](mailto:tristan.hanson@intel.com)

### Graduate Research Assistant The University of Texas at El Paso

01/2014 - 03/2018

El Paso, TX

Performing research in the fields of Semantic Web, Data Mining, and Ontologies.

#### Achievements/Tasks

- Played a key role in pioneering the automated creation and extraction of expressive ontologies from normalized relational databases, streamlining data integration and accessibility. This innovation significantly improved data interoperability and knowledge management practices.

Contact : Doctor Natalia Villanueva - [nvillanuevarosales@utep.edu](mailto:nvillanuevarosales@utep.edu)

### High Parallel Computing Research Intern Stanford University

05/2015 - 08/2015

Stanford, CA

Computer vision and parallel computing research

#### Achievements/Tasks

- Developed a methodology of embedding a real time computer vision payload on a Solo 3DR smart drone

Contact : Doctor Patric Hanrahan

### Tutor/Mentor for Students with Disabilities El Paso Community College

2012 - 2014

El Paso, Texas

Working in private sessions with students with disabilities, enabling them to get the attention and support they need to obtain their degree additionally this includes acting as their mentor for the semester.

## LANGUAGES

English



Spanish



日本語 Japanese



## HONOR AWARDS

### ParkHub challenge winner (2019)

HackDFW

- Time Map is a traffic/parking solution that uses the past Uber movement dataset, crowd-sourced real-time information, and parses information from future events using natural language processing.

### 1st place winner (2017)

RESET Hackathon

- Industry 4.0 and the Internet of Things is the main topic of this hackathon, projects must be developed based on technologies of Mobile Applications, Sensors, Bluetooth, AR, VR, etc. Won 1st place with a cyclic inventory optimization app using computer vision

### Fellowship Awardee (2016)

GEM

- GEM is a network of leading corporations, government laboratories, top universities, and top research institutions that enables qualified students from underrepresented communities to pursue graduate education in applied science and engineering. Fully paid the institution fees for the Master's Degree in Software Engineering.

### Valedictorian award for the academic generation (2012 - 2014)

Instituto Mexico highschool

- Graduated with honors and top of the 2014 generation

## VOLUNTEER EXPERIENCE

### Contributor in low resource home construction Chopeke Collective

2015

Ciudad Juarez, Chihuahua

Chopeke Collective a project for building low resource thermic homes for needed Tarahumara homeless families in Ciudad Juarez, Mexico; under the supervision of Architect Omar Rios.

## CONFERENCES & COURSES

### GEM Annual Conference Presenter (2017)

The national GEM consortium

- Represented Intel Corporation in the conference and was sponsored to attend the GEM annual conference at NYC

### HEENAC conference presenter at Anaheim, CA (2016)

Hispanic Engineer National Achievement Awards Conference

- Presented the paper Data Integration for Digital Geofield Mapping which was developed in my time as a graduate research assistant

### CAHSI conference presenter at Puerto Rico (2014)

Computing Alliance of Hispanic-Serving Institutions

- Presented the paper Semantic-annotating of Research Lab Activities for Data Sharing which was developed in my time as an undergraduate research assistant at UTEP