Yu-Jung Chou

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EXPERIENCE

Salesforce.com, Inc. — Seattle, WA, USA
Software Engineering MTS — *5/2021 - present*

Business Technology - Salesforce - Lotus Products and Approvals team:

- In charge of building the Approval solution in Lotus. Integrate the Advanced Approvals package to the Quote system and make customization to meet the requirements.

Business Technology - Salesforce - Complex Deals team: building SELA (Salesforce Enterprise License Agreement) deal management service for multi-year, multi-product agreements for account groups.

- **Scrum lead**: Managed the team projects, prioritized and planned team objectives with scopes from quarter to sprint. Following best practices and standards for the development life cycles.
- Established the unit test best practices and playbook for new repositories and became the code coverage pioneer of the organization.
- Designed and restructured the cart architecture from proposal to practical.
- **CI/CD champion**: Utilized Jenkins to manage the deployment pipelines and nightly run.
- **Security Champion**: Initialized the security assessment, integrated the Checkmarx security scanning, and mitigated the reported vulnerabilities.

Business Technology - Tableau - SPOPs team:

- Built the CloudServiceProvider(CSP) in microservice architecture on top of existing Tableau architecture for Salesforce to interact with quoting service in Tableau. Designed the structure using AWS services from API Gateway to AWS Lambda, adopted Python REST API framework Flask
- Applying AWS Cloudwatch and SNS to build up the monitoring dashboard to alarm system for CSP.
- Automated the code health monitor using the Gitlab pipeline. Integrated with Checkmarx scanning and achieved 100% code coverage.
- **Security champion**: Initialized the Security Assessment for the new service. Assessed the workflow with security boundaries in a diagram; provided the solution for handling sensitive data at rest and in transit; performed threat assessment and mitigation strategy.

Amazon.com, Inc. — Seattle, WA, USA
Software Development Engineer — *4/2019 - 4/2021*

Builder Tools - Quilt team: provides comprehensive OS patching solutions to keep every single host secure with security patches while maintaining the health of applications and reducing operational burden.

- Designed front-end data provisioning architecture for new patching services to make real-time data provisioned with low latency and avoid throttling.
- Proposed solutions for the new patching service to support restricted cases. For example, target hosts in the isolated EC2 substrate network.
- Established the integration process between the new and legacy patching services while maintaining backward compatibility.
- Implemented the integration tests for our new patching service. Applied Cucumber (Behaviour-Driven Development) to write human-readable test scenarios to improve test readiness and set up the integration test template.

Prime Air - Panda team: builds up and operates the underlying infrastructure to store and analyze Prime Air's data. Panda team's data platform takes raw data, cleans and reshapes it, and puts it into the database.

- Designed zero downtime data migration mechanism, reducing the service downtime from 2 days to none.

- Optimized operation APIs to batch operations and accelerated the process 60 times faster.
- Introduced SNS message attribute to enable attribute filter with customized notification handling.
- Optimized the error handling for schema violation and data processing.
- Introduced Cloudwatch alarms and integrated the Chime (messaging app) notification via Lambda.

TECHNICAL SKILLS

- **Programming Languages**: Python(preference), Java, javascript, bash/shell scripts, C/C++/, SQL, typescript
- **AWS (Amazon Web Service)**: Lambda, SQS, SNS, DynamoDB, IAM, S3, CloudWatch, KMS, Secret Manager, CDK, CloudFormation, ECS, EC2, Athena, Glue, API Gateway, Simple Workflow(SWF)
- **Salesforce**: Apex, SOQL, Lightning Web Component, Visualforce
- **Other Experiences**: Git, Gitlab, Linux system, REST API development, Docker, Relational Databases, Bamboo, Jenkins, Jira, Quip, Checkmarx security scanning, Serverless Web Framework
- **Security**: NMAP, BurpSuite, Metasploit, Wireshark, Splunk, Nessus

EDUCATION

Post Graduate Program on Simplilearn — Simplilearn Online Platform
Post Graduate Program in Cyber Security — *June 2023 - Nov 2023*

Purdue University — West Lafayette, IN
Master of Science in Computer Science — *Aug. 2017 – Dec. 2018*

National Tsing Hua University — Hsinchu, Taiwan
Bachelor of Science in Computer Science — *Sep. 2012 – Jun. 2016*

AWARDS & CERTIFICATES

- **Security Certificates**: CompTIA Security+ (SY0-601)
- **Post Graduate Program in Cyber Security**: Certificate courses: CompTIA Security+, CISSP, EC-council: CEH
- **Information Security Computational Profession**: 7/120 applicants chosen to be the 2017 program candidates.
- **2015 Capture The Flag Competition**: Rank Top 3 in Taiwan, the top 10% among competitors over the world.

SIDE PROJECTS

- **TryHackMe**: 11/2021 - present
  - **Complete Beginner**: Network Exploitation Basics. Web Hacking Fundamentals. Cryptography. Windows Exploitation Basics. Shells and Privilege Escalation. Basic Computer Exploitation.
  - **PRE Security**: Network Fundamentals. How Web Works. Linux Fundamentals. Windows Fundamentals.

ACADEMIC PROJECTS

- **Penetration Testing | Vulnerability Detection**: 2/2015 - 1/2016 | 9/2017 - 12/2018
  - **Self Learning Materials**: OverTheWire, Capture The Flag Competition.
  - **Independent Study**: Utilize the knowledge of Cryptography, Reverse Engineering, Pwn, Format String Attack, Web Exploitation, SQL Injection, etc., to explore information leakage and backdoors.
- **Machine Learning**: 9/2017 - 12/2018
  - **Common Classifiers (from scratch)**: KNN: Euclidean distance, Manhattan distance, Canberra distance; Decision Tree: ID3 algorithm; Perceptron: Vanilla/Basic, Average, Winnow
  - **Spam Filter**: Build Naive Bayes classifier and SVM classifier. Extract data of emails, use the appearances and frequencies of words as features to train the classifier.
  - **Handwritten Digits Recognition**: Implement the convolutional neural network in LeNet-5 architecture with TensorFlow to classify images.
- **Software Develop, Hack, and Patch**: 1/2018 - 4/2018
  - **Software Development**: Build a file transfer service in C, involving socket programming and multithreading. Backdoors planted with techniques of buffer overflow, format string attack, command injection.
  - **Hacking and Patching**: Trace other teams' code; look for vulnerabilities/ backdoors; patch the breaches found.