

<https://github.com/fenichel>
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Alec Fenichel

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Summary

I am a software architect with experience designing, developing, deploying, and maintaining production applications on AWS and Azure.

Education

Georgia Institute of Technology (Atlanta, GA)

Jun '11 - Dec '16

Bachelor of Science in **Mechanical Engineering**

Bachelor of Science in **Computer Science** concentrating in **Devices and Intelligence**

Technical Experience

TransNexus - Senior Software Architect (Atlanta, GA)

Sep '15 - present

- Designed, developed, deployed, and maintained ClearIP VoIP management and protection platform
 - Provides toll-fraud prevention, robocall prevention, STIR/SHAKEN, and LCR with linear scalability using microservice architecture
 - Served as architect and lead developer on project
 - Developed distributed, stateless SIP server written in JavaScript using Node.js with Redis database
 - Developed distributed, stateless RESTful API written in JavaScript using Sails.js and Node.js with MySQL and Druid databases
 - Developed web interface written in JavaScript using Ember.js, jQuery, and Bootstrap
 - Developed numerous supporting applications for queue processing, billing, archiving, etc. written in JavaScript using Node.js
- Designed, developed, deployed, and maintained TransNexus Certificate Authority platform
 - Provides certificates for STIR/SHAKEN call authentication
 - Served as architect and lead developer on project
 - Developed distributed, stateless RESTful API written in JavaScript using Sails.js and Node.js with MySQL and DynamoDB databases
 - Developed web interface written in JavaScript using Ember.js, jQuery, and Bootstrap
- Designed, developed, deployed, and maintained TransNexus Administration Portal
 - Provides web interface and API for managing customers' software
 - Served as architect and lead developer on project
 - Developed distributed, stateless RESTful API written in JavaScript using Sails.js and Node.js with MySQL database
 - Developed web interface written in JavaScript using Ember.js, jQuery, and Bootstrap
- Designed and developed new interface for NexOSS
 - Replaced existing Java web application with JavaScript web application
 - Developed RESTful API written in JavaScript using Sails.js and Node.js
 - Developed web interface written in JavaScript using Ember.js, jQuery, and Bootstrap

BMW Group - R&D Engineer Intern (Munich, Germany)

Aug '14 - Dec '14

- Worked on small team to develop and test prototype for use in future cockpit of automated vehicles
- Developed GUI to monitor and control prototype in real time for dynamic simulator testing using MATLAB
- Created electrical system and software for controlling linear actuator with pulse width modulation using C++
- Created custom PCB Arduino shield and software for recording feedback with force sensitive resistors using C++

McKenney's, Inc. - Information Technology Intern (Atlanta, GA)

May '14 - Aug '14

- Diagnosed and resolved technical issues related to hardware and software
- Developed automated system for sharing files with contractors via FTP using HTML, JavaScript, PHP, and batch

General Electric Aviation - Software Engineer Intern (Cincinnati, OH)

May '12 - Aug '12

- Developed software for first dual core jet engine controller using SCADe qualified C code generator
- Created automated tool for gathering and analyzing licensing server data using Perl, VBA, and batch
- Created project tracking system to quickly identify problematic deadlines using VBA

Skills

Web Frameworks: Node.js, Sails.js, Express.js, Ember.js, Handlebars, jQuery, Bootstrap

Databases: Redis, MySQL, Elasticsearch, Apache Druid, Apache Kafka, Amazon Redshift, Amazon DynamoDB

AWS: Auto Scaling, CloudFront, CloudTrail, CloudWatch, EBS, EC2, Elastic Beanstalk, ELB, IAM, Lambda, RDS, Route 53, S3, VPC

Projects

Ember Simple Auth Token (contributor) - <https://github.com/jpadilla/ember-simple-auth-token>

May '18 - present

- Ember Simple Auth extension for token based authentication including JSON web tokens written in JavaScript using Ember.js

BQueue - <https://github.com/fenichel/BQueue>

Jul '17 - present

- Node.js library for reliable and distributed batch message processing using Redis written in JavaScript

Arduino Pin Library - <https://github.com/fenichel/Pin>

Dec '14 - present

- Arduino library for fast and simultaneous operations to Arduino I/O pins using port manipulation written in C++

Too Many Lasers (contributor) - <https://github.com/fenichel/Too-Many-Lasers>

Jun '16 - Aug '16

- HTML5 space game written in TypeScript using Phaser

Resume Generator - <https://github.com/fenichel/resume>

Mar '15 - Dec '15

- Tool for creating HTML and PDF resumes from JSON data and HTML layouts written in JavaScript using jQuery and Handlebars