

## CONTACT



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/in/benjamingenchel

# ılı SKILLS

- Algorithms
- Data Structures
- Machine Learning
- System Design
- Unit Testing
- Optimization
- Digital Signals Processing
- Linear Algebra
- Probability & Statistics
- Embedded Systems
- EEG Analysis
- Circuit Testing Tools

## **LANGUAGES**





Java



• C++

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MatLab

JavaScript

HTML F

HTMLCSS

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# TOOLS/LIBS

- Linux
- Git
- Google Cloud Platform
- Theano
- Particle.io
- Android Development
- Node.js
- PostgreSQL
- Arduino
- Jade
- Angular.js
- JQuery
- EEG Lab
- Pure Data

# BENJAMIN H. GENCHEL

## **S** EDUCATION

B.S. Electrical Engineering

Focus: Computer Science/Machine Learning

Minor: Mathematics

University of California, San Diego

Graduated: June 2015

GPA: 3.5

## **EXPERIENCE**

#### CleverPet

Cloud Infrastructure and Data Analytics Engineer

Jun. 2015 - Present

- Architected, developed, tested and maintained cloud backend API built in Python on Google Cloud Platform.
- Developed embedded firmware in C++ for interfacing with cloud backend and interacting with users.
- Created and presented a design proposal for mobile apps.
- Collaborated closely with founders and leads, aiding in discussions on system architecture, customer support, and marketing.

#### The Intellisis Corporation

Software Engineering Intern

Jun. 2014 - Sept. 2014

- Designed and developed native Android application in Java to demonstrate the mobile potential of a speaker recognition based security system.
- Developed a Python desktop application/interface for collecting data on potential attacks on the system.
- Parallelized Python/Py.test unit test runs resulting in 10 times reduced total run time.

#### ViaSat

System Test Engineering Intern

Jun. 2013 - Sept. 2013

- Completed several Linux/TCL scripts and information technology tasks supporting the development and test of a large scale satellite internet ground system.
- Developed a system overlay for Android in Java while competing in an intern hackathon.
- Shadowed several full time employees, receiving instruction and mentorship in computer networking topics.

## **EXTRACURRICULAR**

## Music Composition with Deep Nets, UCSD Computer Science Department

Researcher

Apr. 2016 - Present

- Currently assisting in the research and development of neural networks for composing music.
- Developed auxiliary tools for interpreting, formatting and creating MIDI files to assist in building datasets and visualizing network parameters.
- Presented relevant research papers during weekly journal clubs.

## De Sa Lab, UCSD Cognitive Science Department

Researcher

Apr. 2014 - Present

- Assisted with experimental set up and data collection by capping subjects and operating EEG software.
- Examined and discussed current BCI, EEG, and Machine Learning research at lab meetings and colloquiums.

## Theta Tau Professional Engineering Fraternity

Web Master

Jun. 2013 - May 2015

- Created and led a 5 person team towards the goal of developing web applications to facilitate fraternity communication and task completion, and to allow younger members to practice software engineering skills..
- Developed the base framework for an internal tool to conglomerate fraternity communication, data and process using Node.js, Angular.js, and PostgreSQL.
- Developed new fraternity website (ucsdthetatau.org) using Node.js, Jquery and PostgreSQL.
- Created member graph visualizer built on D3.js using Node.js, and PostgreSQL.

#### Pledge Instructor

Jun. 2014 - Jan. 2015

• Designed and led an 11 week program teaching 13 initiates skills in teamwork, confidence, leadership and professionalism through numerous workshops, events, and assignments including a technical design project.

#### **UCSD Jazz Chamber Orchestra**

Drummer Jan. 2011 - Jun. 2015