

Jack Ellenberger

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EDUCATION University of Chicago, Chicago IL
B.S. Computer Science, Minor in Statistics

EXPERIENCE *Braintree Payments*
Software Engineer June 2016 - Present
Maintained the [Braintree](#) and [PayPal](#) developer docs and [marketing sites](#), while working with technical writers to expand and improve functionality. Rewrote Braintree's federated site search to use a custom parser and **Algolia** front end to serve tens of thousands more useful results. Streamlined release processes while eliminating downtime, implementing **nginx** caching, and reducing **AWS** asset storage load by 97%. Secured form inputs against attack via backend validation and captcha. Integrated new features into the **C++**, **Java**, **Ruby**, **Python**, **.NET**, **PHP**, and **Node** server SDKs including porting **.NET** to **.NET Core** compatibility. Wrote tools to allow seamless migration of sensitive customer any payment information to and from Braintree, leveraging **awk regular expressions**. Improved **Jenkins** testing for multiple projects, expanding usefulness for non-technical users while surfacing specifically identified issues to developers, and bringing version controlled CI to PayPal projects. Helped to **Dockerize** development and release of multiple services using legacy **Capistrano** processes as well as **Kubernetes**. Made additions to Jenkins and Docker Ruby DSL's for use on our team and others. Wrote shim into existing core to enable **GraphQL** endpoints. Wrote thorough API validation tests to ensure nothing went undocumented. Co-founded Python Tutorial group to encourage technical literacy among Braintree Support employees, provided one on one mentorship for interns, and forced Slack to paginate their emoji page via excessive use.

Revenew Inc.

Operations Administrator & Technologist Intern Summer 2015
Wrote scripts and queries for **Piwik** Analytics to decrease analysis duration of 14,000+ tracked sites by a factor of 120x while collaborating with creators and users. Edited existing code base to allow for secure SSH access from **.NET** webapp to **Ruby** scripts. Designed **database** and storage procedures to maintain Financial Services data in cloud-based WORM compliant manner. Created automated testing environment to ensure that latency is minimized and reliability is guaranteed for a non URI routable platform. Created sample webpage to demonstrate ability to cobrand video, rendering on demand. Created procedure for duplicating and migrating **Wordpress** sites automatically, updated existing templates and plugins, and implemented **okta** single sign-on.

Land O'Lakes Inc.

Project Management & Application Development Intern Summer 2013 and 2014
Created **iOS** sample for a secure, internal crisis management app, oversaw its development by an offshore team, composed documentation and test scripts. Wrote tool chain to increase readability of scanned data. Implemented **ELMAH** system to report client side API errors to developers. Performed code maintenance and extensions on projects from previous internship. Designed and implemented public-facing API and UI for approved milk producers to archive milk quality data sets, as well as for regulators and third parties to audit. Wrote **SQL** calls to manage login and communication logging. Created scripts to facilitate cleaning of old data. Extended location API to allow for more useful queries.

University of Chicago

Humanities Computing Technician October 2012 - June 2016
Conducted **Tier 1 & 2** technical support directly with Faculty and Staff of the University to identify hardware and software issues and to resolve them with minimal loss of data or time. Performed on site repairs, basic data recovery, and **documentation** management tasks.

SKILLS Jenkins/Continuous Integration, API design, Pair programming, Unix/Linux systems, Android & iOS, Web development, Application Programming, Vim, Project Management, Parser design, Low-Level Programming, Database design & management, Azure systems management, High traffic Piwik instances, Wordpress templates & plugins, MVC RESTful APIs, Regular Expressions, Collaboration through git, svn, and tfs

LANGUAGES	Ruby, Python, Node/Js, Java, C#.Net, C++, Arduino/C, Bash/Zsh, SQL, Linq, R <i>Working Knowledge</i> : Objective-C, OpenGL / GLSL, Haskell, SML, Assembly (6502 & x86), PHP, Perl, Yacc, awk, sed, G-code
PROJECTS github.com/ jackellenberger	UNIVERSITY Implemented Pintos kernel (C), TCP Protocol (C), FLang Compiler (SML), Optical Character Recognition (Python), Ray tracing (C), Protein Data Mining (Python), HMM for linguistic analysis (Python), TEC based 3D Ice Printer (G-Code/C++) PERSONAL <i>Awesome-o</i> : A stateless Slackbot for parsing Trello boards, and tracking opensource issues. <i>Phyllo.apk</i> : A location based distributed information sharing app (mySQL, Django, Java). <i>ellenberger.zone</i> : A personal website with subdomains for each of my family members. <i>Slack Yaml Manager</i> : A hybrid slack bot and standalone program to allow users to execute arbitrary code using configurations generated through slack commands. <i>html-to-text</i> : Improved upon existing design to better handle complex tables. <i>YamlLineNumbers</i> : A lightweight library to surface source line numbers in parsed ruby hashes. <i>FossFazor</i> : A 3D printed waveguide for Orthodynamic headphones based off the Audeze model. <i>MuLtIplication</i> : A Python interface for radioligand binding assays to determine solubility of novel and published Dopamine D2 receptor-like ligands to be used by the Newman Group at the NIH. <i>ShowProdDehydron</i> : A 3D viewer for Dehydron distribution in proteins in Python. <i>oGrocer</i> : An app to crowdsource current food price trends and give consumers complete price knowledge about what to buy where. <i>Gerrymeleon</i> : A GPGPU project in its infancy to calculate and solve Efficiency Gap problems.
INTERESTS	FOSS, Hardware design, Operating systems, Machine learning & NLP, Statistical analysis & Data analytics, UX design, VR/AR/MR, Maker, Cello, Audiophilia, Video games, Cryptography, Scientific visualization, 3D Rendering, Linear algebra, Alternative input methods