

Zachary Bruennig

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EDUCATION

UNIVERSITY OF KANSAS

Computer Science Major

Math Minor

May 2019 | Lawrence, KS

Cum. GPA: 3.75 / 4.0

Engineering GPA: 3.68 / 4.0

Minor GPA: 4.0 / 4.0

Cum. ACT Score: 30

Math ACT Score: 34

PROGRAMMING SKILLS

Experienced:

Ruby, Rails, C++, Linux, Python, C#

Knowledgeable:

C, Java, Haskell, JavaScript, React,
Unity, LaTeX

Familiar:

VHDL, SQL, HTML, CSS, Lua

PROJECTS

Noteworthy Projects

(Bold indicates Github source available)

FlingShot (C#, Unity)

Seat Critique (Ruby, Rails)

Reaching Static Analysis (Python)

Pool Hall 3D Scene (C++, OpenGL)

Sunshine Alarm Sensor (Hardware)

Skeddit (Ruby, Rails)

CensusPlus, other mods/addons (Lua)

Bash Terminal (C)

OS Scheduler (C)

MIPS Processor (VHDL)

C-style compiler (Haskell)

Many smaller/less exciting projects.

(C++, Python, Haskell, JavaScript, etc.)

MATH

Quantum Algorithms

Theory of Computing

Graph Theory

Predicate and Symbolic Logic

Mathematical Statistics

Number Theory

Modern Algebra

Calculus/Linear Algebra

LINKS

Github: **zbruennig**

Facebook: **zachary.bruennig**

Snapchat: **zkb_0**

LinkedIn: **zachary-bruennig**

EXPERIENCE

CERNER

Summer 2018 | Kansas City, MO

- Created a Ruby service client for Cerner's HealthIntent platform.
- Performed Load Testing for various microservices.
- Followed Agile practices, including scrum, code reviews, source control, and user stories.

BALANCE INNOVATIONS

Summer 2017 | Lenexa, KS

- Created a dashboard which tracks and displays information about one of Balance's gateways.
- This project combined backend SQL and C# with frontend React.
- Managed to get projects in different frameworks working together.

TEACHING

2015 - 2019

- Worked as a TA for multiple math classes, leading help and review sessions of sizes ranging from individuals to groups of 100+ students.
- I've tutored many underclassmen subjects, including Physics, Calculus, Linear Algebra, Programming, and Digital Logic.
- I have been praised as one of the best TAs at KU.

LEADERSHIP

FLINGSHOT

2018 - 2019

- Team leader for my senior capstone project. We built FlingShot, a mobile procedurally-generated slider puzzle game.
- I created, implemented, and staged our random map generator algorithm, and several other key parts of the app.
- My most important role was ensuring that the entire team was working together cohesively, and that everyone had the resources to succeed.

HACK KU / ACM

2016 - 2018

- Coordinator for judging KU's annual Hackathon, HackKU. In 2018 HackKU pulled in 100+ from across the country. I created the competition rules and oversaw the judging process.
- Programming Club chair for the Association for Computing Machinery (ACM). I ran weekly meetings where the club talked about technical subjects. My role included hosting/giving talks, writing programming challenge problems, and organizing/running programming competitions.

AWARDS

2016	Garmin Excellence Engineering Scholarship
2016	2nd Place in the Junior Level KU Math Prize Competition
2017	1st Place in the Junior Level KU Math Prize Competition
2017	Department of Mathematics Scholarship
2017-2019	Member of Tau Beta Pi Engineering Honor Society
2017	HKM (EECS Honor Society) Undergraduate Award (x2)
All Years	Engineering Dean's Honor Roll
2018-2019	Undergraduate Teaching Award
2019	3rd Place in the Senior Level KU Math Prize Competition