Gabriel A.S. Krell

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PROFESSIONAL EXPERIENCE

Software Engineering Intern, JPMorgan Chase & Co. *Jun. 2019 – Aug. 2019*
- Expanded API powering customer-facing data insights in Chase banking applications.
- Wrote unit, integration, and performance tests in JUnit, Cucumber, and JMeter.
- Operated at 125% of average developer productivity in test-driven Agile team.

Software Contractor, FUSE Studio (Northwestern University) *Feb. 2017 – Jul. 2019*
- Developed system to deploy, manage Raspberry Pi web servers for students to explore.
- Added new peripheral support to drag-and-drop Arduino editor "Blocklyduino".
- Consulted on project feasibility; researched implementation techniques and built projects.

Software Engineering Intern, Infosys *Jun. 2018 – Aug. 2018*
- Defined RESTful API, designed NoSQL database, and created UML diagrams.
- Streamlined project onboarding with new development environment documentation.
- Authored project's functional specification document to direct future feature requirements.

Instructor, Code Play Learn *Jun. 2015 – Apr. 2018*
- Taught programming and electronics classes for K-8 in six block-based languages, JavaScript, Arduino.
- Planned course content, trained new employees in technical skills and classroom management.

Developer Experience Engineering Intern, SendGrid *Jun. 2017 – Aug. 2017*
- Improved developer experience in open-source client libraries across 7 languages.
- Created email release notification system to increase open-source contributor engagement.
- Dockerized Python client library to simplify testing and contribution processes.

EDUCATION

Illinois Institute of Technology – Chicago, IL *May 2020*
- B.S. Computer Science GPA: 3.1/4.0
- Camras Scholarship: Full tuition merit-based scholarship

PROJECTS

Advanced Measurements of Molecular and Mechanical Properties of Heart Valves Under Dynamic Strain
- Measured stress-strain curves of muscle-tendon transitions in heart valves.
- Determined technical requirements; built modular device; wrote and maintained firmware.
- Second author; submission to *Acta Biomaterialia* pending.

HomeChecker (ScarletHacks 2017)
- Generated IoT sensor usage graphs and statistics on full-stack platform.

Mint Shuffle/Line Follow
- Programmed a robot to visually identify and follow a branching path.
- First place for accuracy and speed.

CSARC: (cRIO) serial Arduino RGB Controller
- Allows an FRC robot to control patterns of onboard LEDs with lightweight commands.
- Uses human-readable serial connection for simple debugging.

SKILLS

Programming: Python, C, JavaScript, Haskell, Java, Flask, Node.js, SQL
Software: Git, Bash, LaTeX, Docker, Cassandra, Jenkins, MongoDB

AWARDS & EXTRACURRICULARS

Electrical Team Lead, Scarlet Spacehawks (NASA Robotic Mining Competition) *2019 – Present*
Member, IIT A Capella *2016 – Present*
Chicago Engineers' Foundation Incentive Award *2016, 2017, 2018*