

Khalid Shakur

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Employment

Software Engineer, Intern	Facebook	Summer 2016
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- Worked on the Devserver Tooling team within the larger Developer Environment Infrastructure cohort.
- Created tool to automate and optimize the transfer of developers' home directories between devservers. Job scheduler allows for hundreds of transfers concurrently, useful for yearly decommissions of server clusters with outdated hardware. Increased success rate of all transfers by 40%.
- Paginated and added column search to web user interfaces of database tables containing transfer information.
- Created activity log tool enabling users to discover and modify the privacy settings of offensive Timeline posts.

Software Implementation, Intern	Schoolzilla	Fall 2015
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- Developed script that generates mock data to populate demo reports utilized by the sales team.
- Created custom Tableau reports for school districts to better analyze aggregate student performance data.

Course Reader/Grader	UC Berkeley	Spring 2015 – present
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- Head reader/grader for CS61B, Data Structures and Algorithms, a course with an enrollment of 1,200.
- Lead one hour of discussion section and host two office hours per week. Provide individual tutoring for struggling students. Create discussion worksheets and review materials for exams. Grade projects and exams.

Education

University of California, Berkeley	B.A. Computer Science, May 2017
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- Coursework: Advanced Algorithms and Intractable Problems, Artificial Intelligence, Databases, Discrete Math and Probability Theory, Machine Learning, Machine Structures and Computer Architecture, Mobile App Design and Development, Networking Protocols and Architecture, Operating Systems, Security

Projects

- **Duty Logger (2016)** Android app standardizing residence hall staff logging and incident reporting. Provides users customized reports and alarms relevant to job duties.
- **Plutus (2015)** Android Wear budget app targeting inexperienced travelers. Allows users to enter expenses, exchange currencies and view budget reports via voice input.
- **Firewall (2015)** Active stateful application-layer firewall implemented in Python to enforce user specified TCP, DNS, HTTP, UDP and ICMP rules. Firewall injects RST packets upon denying TCP packets, injects DNS response packets redirecting to fixed IP addresses and logs HTTP transactions.
- **File Compression (2014)** Java program that compresses and decompresses files and directories recursively using Huffman coding. Compresses by character or word for optimal file size.
- **Processor Design (2014)** Processor circuitry implemented in Logisim to support the MIPS instruction set.

Leadership and Awards

- **Resident Assistant (2015 – 2016)** Created community by planning and hosting events. Encouraged personal and academic development by acting as a resource and role model. Handled emergency situations and mediated conflicts within the community of 400 residents.
- **Tapia Diversity in Computing Conference Scholarship (2016)** Chosen as a representative of UC Berkeley to participate in technical workshops, and network with academics from diverse backgrounds and ethnicities.

Skills

- Python, Java, C, HTML, CSS, SQL, PHP, Bash, JavaScript, Android, MapReduce, MIPS, Framer.js, Scheme